

Florida WILDLIFE

AUGUST, 1955

The Florida Magazine for all Sportsmen

25 CENTS

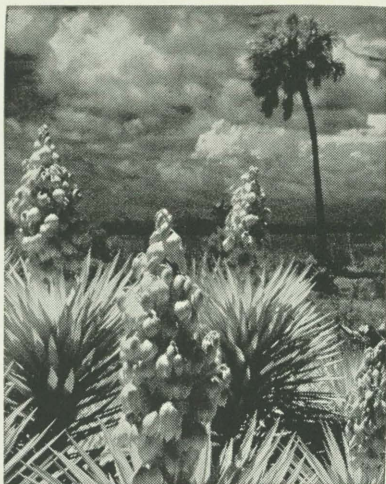
MILLION DOLLAR
LEGS

GOOD NEIGHBOR
BASS

G.I. CONSERVATION



Florida Wildlife's Junior Wildlife PHOTO CONTEST



PLANTS



ANIMALS

RULES

1. The Junior Wildlife Photo Contest ends at midnight September 15, 1955.
2. Contestants must be between the ages of 10 and 18 inclusive.
3. All photographs must be taken within the State of Florida.
4. All photos must be mailed first class mail to Florida Wildlife, Tallahassee, Florida, by midnight of September 15, 1955.
5. Contestants may submit as many photos as they desire.
6. Photos must be at least 4 inches by five inches in size and no larger than 11 inches by 14 inches.
7. The following information must be printed or typed on a piece of paper and pasted on the back of each photograph: (Do not write on photos.) (a) Name of camera used (b) type of film used (c) exposure used (d) location where picture was taken (e) your name, address, and age. This information must appear on the back of every photograph submitted.
8. All prize winning photographs become the property of Florida Wildlife.
9. No photographs will be returned unless self addressed, stamped envelope is enclosed with entry.

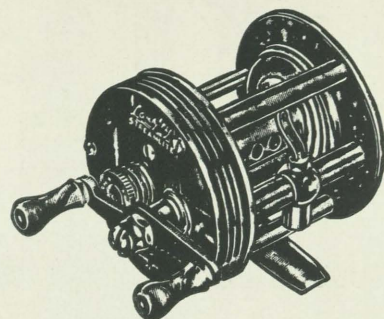


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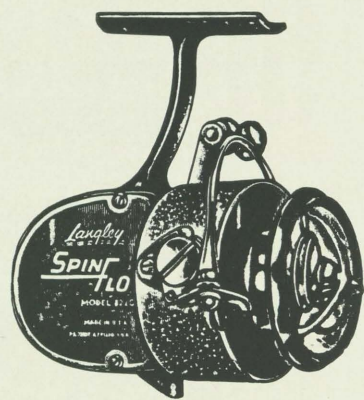


FISH

PRIZES



3 LANGLEY STREAMLITE REELS



3 LANGLEY SPINFLO REELS

PLYFLEX Casting Rods
 SOUTH BEND Casting Reels
 GLADDING Spinning Lines
 GLADDING Casting Lines
 MY BUDDY Tackle Box
 AUBURN Fish Hook Assortments
 REDHEAD Gun Case
 LUCKY 7 Tackle Assortments
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 PERMA Gun Finishes — Assorted
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 DIAMOND JIM Lures—Assorted
 OLD ENGLISH FLASH MINNOWS
 —Assorted
 SHELL-O-MATIC Cartridge
 Dispensers (2)
 SQUACKY Squirrel Call

★

Published monthly by the
FLORIDA GAME AND FRESH WATER FISH COMMISSION
Tallahassee, Florida

★

Dedicated to the
Conservation, Restoration, Protection of Our Game and Fish

★

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ROSE  TALLAHASSEE

STRIKES and Backlashes

Dear Sir:

I have been reading your magazine from time to time and have especially enjoyed the articles by Mr. Edmund McLaurin.

Also, I caught an eight pound, 5 ounce black bass on one of the lures recommended in Florida Wildlife Field Tests and Tells. I would like a certificate to fill in to apply for a fishing citation.

Melvin G. Kennedy
St. Petersburg, Fla.



Gentlemen:

The bass shown in this picture were caught by Dick Greene and Richard Dairs of LaBelle. They all weighed in between 3 and 7½ pounds. The little fellow holding the 7½ pounder is Dannie Dairs who is quite a fisherman himself.

H. G. Hisler
LaBelle, Fla.

Dear Editor:

A few years ago I became the recipient of a subscription to "Florida Wildlife" through the graciousness of two friends of mine residing at Miami, which added to several other outdoor magazines that I read diligently. I could not help, since it was a comparatively new publication, to feel that it contained, like all others, some chaff and, likewise, some wheat. That is about the harvest that comes from trying to satisfy everyone, and to chronicle the viewpoints of many people that feel they are authorities on conservation matters. Many times their offerings fall short of measuring up to anything that is scienti-

fic or practical. Then you find others who are concerned only with what can be had that will benefit them individually and without too much consideration for what is good for all the people of the nation. I have continued as a subscriber because I find as time goes on the chaff becomes less and the wheat more abundant. In emphasizing this particular point I wish to mention that there are three articles in your June issue that will well compensate a substantial investment in subscriptions and interest.

"Operation Survival" by McGregor Smith, Jr., produced some material that ought to be in the hands of every person who is liable to find himself in a strange land without means of survival excepting what he might create on his own.

The "Wild Turkey" article by Archibald Rutledge was one of the finest that I have ever read pertaining to this subject. It was no neophyte who prepared it.

Now I come for the moment to the transcendent one entitled "North Florida Afire." It was impressively chronicled, gave the facts and serves as a blueprint as to the problems that confront the people of this nation in trying to preserve our natural resources. Here was a case of wanton slaughter of wild life, humans were imperiled and the loss in crumbling land values by reason of their being reduced to scorched earth was all brought about through the vicious, ruthless, criminal act of unseen people who are allowed to be at large. I have been at the scene of some terrific fires running through the countryside, but this one without question, was most devastating.

In closing, I also want to compliment Mr. Cleveland Van Dresser on his theory of generating electric power by means of windmills. It is not only practical, but I believe the article will have a tendency to sharpen people's interest in this medium of electrical energy production, and that, in turn, will save many of our streams which are being disturbed through the introduction of dams that seem to have been in control of a group of individuals who have completely lost sight of the practical aspects of retaining our water tables in conserving this world's most precious commodity—water.

Del A. Smith
Detroit, Mich.



Dear Sir:

Enclosed is a picture of my wife with two bass caught in Cypress Lake near St. Cloud. The largest weighed fifteen pounds four ounces and the smallest fourteen pounds two ounces.

As usual, we are looking forward to spending the winter in beautiful Florida and hope the fishing will be as good as ever.

Fred Schulz
Parkersburg, W. Va.

Dear Sir:

In re letter by Homer Smith in "Strikes and Backlashes," June, 1955.

I was born and raised just several miles from Mr. Smith's "Blue Springs." I have studied the manatee for many years all over Florida. I have authored several articles on the animal; have lectured on them (Florida Academy of Science, Dec., 1953; American Museum of Natural History, New York, June, 1953); spent three months last year making underwater movies of manatees for a major Hollywood studio; have captured, and raised two manatees, both still living and available for public exhibition here in Florida at one of our foremost wildlife attractions. I am thoroughly familiar with Mr. Smith's "tourists," and, in all probability I know his manatees better than he, for not only observing them at Blue Springs, I have delved into their family life (some of it very intimate) all the way from Lake Monroe to Palatka. I wonder if Mr. Smith knows that Blue Springs is but one of many springs on the St. Johns that offer refuge to manatees during cold weather? They may also be seen at the mouth of Silver Glen and Juniper Springs during cold days. Also the Wekiva, the Oklawaha and Haines Creek. Families may be seen at all places on the same day which overrules



FLORIDA Birdlife



THE NIGHTHAWK

Chordeiles minor

THE PIERCING CALL, spectacular aerial gymnastics, and characteristic booming sound given off by the wings as the bird zooms upward at the end of its zooming dive make the nighthawk one of Florida's best known birds. Perhaps better known as the bullbat, the species is as common around towns and cities as it is in the most isolated of river swamps and coastal marshes.

The nighthawk belongs to the family *Caprimulgidae*, the Goat-suckers, a name which commemorates an erroneous belief held during earlier days in England and Scotland where a similar form was supposed to have a marked fondness for goat's milk.

Although many races of nighthawks are recognized by the specialists, they are so nearly alike that the matter is of small concern to the average observer. In total length, the bird is from $8\frac{1}{4}$ to about 10



inches with a wingspread of from 20 to 23 inches on the average. The upper parts of the plumage is dusky,

mottled with grayish white and black. There is a white throat band. The belly is dull white with darker narrow crossbars. The primaries have a large white patch across the middle and the tail has a narrow white band near the tip.

The nighthawk is distributed generally throughout the Western Hemisphere, from the Yukon to Patagonia. The winter range in general extends from Colombia southward.

Although irregular in their time of arrival, most of the birds which summer in Florida appear during April. Earlier arrivals have been noted within the state, sometimes as early as February. The date of departure to their more southerly wintering grounds also varies considerably but in the northern part of the state is usually sometime during October and, in the southern portion, in November.

Normally two eggs comprise the female's contribution toward perpetuating the race. These are laid on the ground with no effort being made toward construction of a nest. Gravel roofs of buildings are often utilized as nesting sites. Incubation requires about 19 days.

The bird frequently hunts by daylight, usually during morning and afternoon hours, but also during the hours of darkness.

The nighthawk is insectivorous in its eating habits. One of the most commonly eaten elements of food is flying ants, 1800 of which were reported found in the stomach of one specimen. Beetles are taken in great numbers as are flies, grasshoppers, plant lice, cotton-boll weevils, and mosquitoes.

During the past fifty or sixty years there have been many changes in ideas regarding which birds and animals properly constitute "game." The nighthawk is an excellent example of this. Records reveal that during the 1880's and later, nighthawks were much sought as a game species. In 1888 Dr. F. M. Chapman writing from Gainesville, Florida stated that nighthawk shooting at that time was a popular pastime, with great numbers being killed for food. During August, when the birds gathered in flocks, certain favored fields were occupied at dusk by as many as a dozen shooters. This practice, of course, is now prohibited by law, as it has been for many years.

Nighthawks display one of the most remarkable examples of protective coloration of any of our native birds, their mottled pattern in subdued colors requiring exceptional powers of preception to be detected against a normal background.

END

the possibility of there being but one family.

Mr. Smith does not have the experience or understanding to criticize such authorities as Moore and Hamilton. I would venture a guess that Moore, Hamilton, and myself have seen more wild manatees than Homer Smith has seen wild turkeys and Mr. Smith is quite a turkey hunter. (I know him personally.)

It is true that the manatees at Blue Springs do not respond to their environment in a normal manner. In fact, the manatees at Blue Springs are very very unusual in their behavior. This is because they are extremely uncomfortable, almost in a state of shock, and, actually, very near death.

Experiments have shown that manatees cannot stand temperatures (in water) below 68 degrees F. for extended periods of time.

The manatees at Blue Springs use that location only as protection from cold. The cold affects them in this manner; they are listless; the breathing schedule is greatly reduced, there is a drop in skin temperature which is extensive; they rarely eat; their bodily functions practically cease; their whole body activity approaches a dormant state resembling semi-hibernation in a way.

Quite naturally then, Mr. Smith's manatees do not react the same as manatees in a happy environment. He should be aware of this fact which he obviously is not. So Mr. Smith should learn a little more about manatees himself before he attempts to write articles refuting the observations and writing of great men of learning such as Moore, Hamilton, Cahalane, and Booth.

R. Bushnell
St. Petersburg, Fla.

THE J. C. L. CAMP

THERE WERE some breathless people on hand June 19, when the Junior Conservation Camp opened for business in the Ocala National Forest.

Some incredible obstacles had been surmounted, and some almost-impossible objectives had been achieved. And everyone was breathing hard as the result.

On the surface, the summer camp operated smoothly during its first weeks. From all over the state, boys had descended on the camp, confident that they were about to enjoy the outstanding week of their lives. And they were immediately plunged into a well-rounded program of outdoor activities.

On the surface, the camp operated as smoothly as whipped cream. But beneath the surface there was first an undercurrent of quiet desperation. The desperation soon turned into gratitude, and finally into a sense of real achievement.

The trouble, such as it was, really started in late May, when construction of the camp was suddenly halted for lack of funds. There was just no more money available, so the stop-order went out. The mess hall, 100 by 48 feet, stood lonesomely without a roof. The cabins, halted in various stages of building, looked as if they were being destructed instead of constructed.

Everything was called to a complete halt. There was no money, and no way to turn to get money.

Precious days passed, and little construction work was done. Finally, 13 hopeless days had passed, and only 10 days remained before the camp was scheduled to open.

Then, on June 9, the Florida Game and Fresh Water Fish Commission was able to loan a total of \$10,000.00 to the Junior Camp Construction Fund. It was specified that the money was to be eventually repaid to the Commission's own building fund.

Almost at the minute that the loan was approved by the Commission, telephone dials went into action. Quick, anxious conversations went out over the wires, criss-crossing the state, informing camp personnel that construction could be restarted.

Within a space of minutes, the lid was off the construction program, and building of the mess hall and cabins continued at a furious pace.

For 10 days, activities proceeded on an around-the-clock basis. Suddenly, it was realized that, barring unforeseen stumbling blocks, the camp would be constructed well enough—everyone prayed—to open by June 19.

Next move was to get furnishings for cabins and mess hall. Trucks went speeding out to get everything from double-bunks to frying pans and ladles. By an almost miraculous feat of magic, Denver Ste. Claire, youth camp director, was able to arrange purchase of the entire kitchen equipment of the Hotel Harrington, in Ocala, from the City of Ocala. That took care of the main problem of mess hall equipment.

Additional precious days slipped by, until, finally, there were no more days left.

Everyone paused for a split second to survey the results of the frantic race.

By golly, there was a mess hall! And it had a roof on it. And it had tables in it. And it had kitchen equipment, with a staff of cooks working. And it was ninety percent completed.

And, by gosh, there were three cabins ready for occupants. True, the cabins had no windows and screens. But workmen were busily engaged in installing them.

So the camp opened with a complement of boys from all sections of the state. They came from such far-flung points as St. Petersburg, Gulf Breeze, Ocala, Keystone Heights, Hialeah, and Ft. Lauderdale.

The campers were immediately involved in a constant series of activities, under the close supervision of the best of adult advisors. The camp advisors, or counselors, were obtained from the University of Florida.

During the first weeks of camp, the campers often carried out their activities amidst a small upheaval of construction work. But, like all good campers, the boys expected a few minor inconveniences, knowing that some day they would have an opportunity to not only make it into an amusing story, but even to brag about those first few days.

The important thing was that the camp was there, that it was opened, and that those campers on hand were able to undergo a complete camp-session.

There was, for instance, a new sand beach on Lake Eaton, pumped in only a few short weeks ago. And there was, as always, the magnificent beauty of the surrounding Ocala National Forest, with all its vast resources of wildlife, forests, fish and game.

All of the work at the Lake Eaton Camp, of course, had been done with financial aid from sportsmen's clubs and interested persons.

DONATIONS

A total of \$9,502.95 has been donated to the construction fund of the Junior Conservation Camp in the Ocala National Forest, according to A.D. Aldrich, Director, Game and Fresh Water Fish Commission. The total does not include the \$10,000 recently loaned to the camp by the Commission.

Aldrich stated that the names of all persons and organizations donating are listed on page 34.



A new sand beach and an improved dock are welcome additions to the physical features of the new Junior Conservation Camp at Lake Eaton.

JUNIOR CONSERVATIONIST

By DENVER STE. CLAIRE

FIRST WEEK at the Lake Eaton Camp had quite a few young people from the various parts of the state. As you know, the first week was set aside for the youngsters in the age bracket eight through eleven.

Two new clubs sent their camping enthusiasts to participate in the fun and learning. They were Gulf-breeze and Keystone Heights.

The young representatives from Gulfbreeze were: Randy Whalman, Stevie Turner, Lonnie Turner, Ben Mayer, Jimmy Brassell, Larry Brassell.

Keystone Heights sent Tommy Thompson, Jimmy McMurtry, Bob Jackson, Veazy Walker, Jimmy and Butch Fox, Eric Redfearn, and Alec Livingston.

The Dean Mather Club of Ocala delegated Mike Gadell, Dean Cooper, Gene Cooper, William Topper, George Whitfield, Danny Hicks, Michael Moritz, Tommy Smallwood and Frank Mustin.

St. Petersburg elected Richard Born, Jimmy Raleigh, James Scott, Roger Smith, and Stephen Green.

Members from the Hialeah Club were Richard Daniels, Bill Mawhinney, Donnie Maples, Rodney Poole, and the Ft. Lauderdale Angler's Club sent Scott Flanders.

Clubs represented were: the Gulf Breeze Junior Conservation Club, the Keystone Heights Junior Conservation Club, the Dean Mather Junior Wildlife Club from Ocala, the Everglades Junior Conservation Squadron from Hialeah, the St. Petersburg Junior Rod and Gun Club, and the Angler's Club of Broward County from Ft. Lauderdale.

Staff for the camp this year:

Counselors

Albert Hunter, B.S.—University of Florida

Homer Shaeffer—University of Florida

Jose Heurtas-Jourda—University of Florida

Cooks

Angus Kemp—First cook

Luther Bell—Second cook

Garry Wiggins—Utility

Junior Counselors

Gerry Hill

Duana Witt

Bob Burns

Lynn Ward

Added Features:

This year we have a small buck fawn that has taken everyone's fancy. At present we are still feeding him by bottle but have hopes of taking him off this limited diet in the very near future.

Along with this we have two fish tanks filled with bass, bream, and catfish.

Conservation Projects:

Many of the boys are busy at camp this year earning points by doing or by participating in some conservation project. Some of the boys have had to keep on their toes because of not having the required number of points for camp, while others haven't had to bear down too heavily. But all are having fun while learning.

Awarding Achievement Badges:

This year, for the first time, achievement badges are being presented to those attending camp and taking their tests, both oral and written, on the following subjects: game—deer, fish (general), and trees (general). The badges, made of cloth, are very attractive and I feel certain that all of you will be very happy to wear one of these under your emblem on your sleeve.

Lectures:

Our specialists and biologists are presenting very unusual talks this year. Biologists giving talks this year at camp are: Ed Tyson, Ed Chamberlain, Lou Gainey, David Swindell, Fred Stanberry, Hugh Fields, Don Strode, Frank Winston—all lecturing on game. Ed Zagar, Don Luethy, and Jack DeJean will talk on fish management.

Dean Perra and Phil Phillips present a very interesting talk on hyacinth control and law enforcement by air is covered by George Langford. Regional management is discussed by E. T. Heinen and David Swindell. Rules and regulations are presented by Joe Simmons. The U.S. Forestry Service is represented by Tom Tobin, Bill Palmer and John Olson. Radio communications by Rhett McMillan, archery by John Benedict, indian lore by Gene Gallant and Bob Mitchell (Seminole Indians) are other talks of interest. The Florida Forestry Service is represented by Messrs. Duprey and Bland.

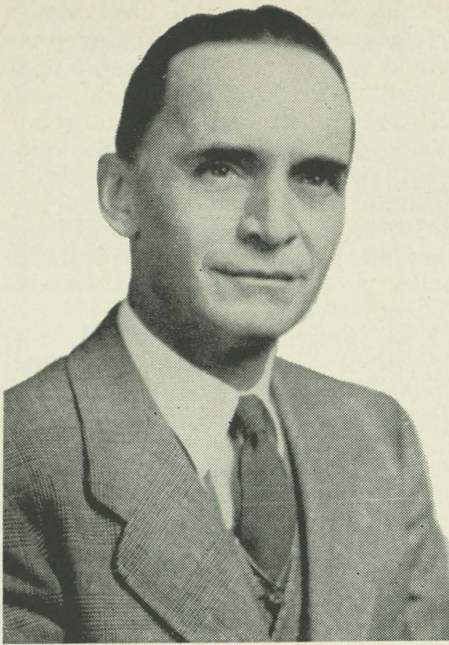
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Members of the Whizzers Junior Conservation Club of Tallahassee hear Wildlife Officer Ross Summers tell of 2 deer which locked antlers and died. Ross holds the skulls of the two 13-point bucks. L. to R., seated, are Gene Slade, Tommy Buchanan, Summers, Charles Jernigan, and Tommy Sadler. L. to R., standing, Bobby Jernigan, Everall Perkins; Club Sponsor H. E. Slade; President Tommy Jernigan, and Secretary Donald Allen.

CONSERVATION COORDINATION

By A. D. ALDRICH



A. D. "Bob" Aldrich began his duties as Director of the Florida Game and Fresh Water Fish Commission on April 11th of this year. Mr. Aldrich brings with him to Florida an impressive record of conservation experience dating from 1921 when he accepted a position with the U.S. Bureau of Fisheries.

He was appointed Fish Hatchery Supervisor in Oklahoma in 1926. He has also served as Director of Fisheries for the Oklahoma Game and Fish Department, Supervisor of Lakes and Recreation for the City of Tulsa, Oklahoma, biologist for the U. S. Corps of Engineers, and Acting Director of the Oklahoma Game and Fish Department.

He has been active in the affairs of the American Fisheries Society, the International Association of Game and Fish Commissioners, the Wildlife Society, and other professional organizations. He has served as Chairman, Central Flyway, North American Waterfowl Council.

IT HAS BEEN proven down through the ages that the success of any venture whether of a business nature or otherwise depends wholly upon close coordination. It has been to that end that I have worked for over 25 years in the field of conservation—close coordination between the sportsmen so interested in the fish and wildlife of our country and the professional technicians who devote so much of their time to the restoration, propagation and conservation of our abundant natural resources.

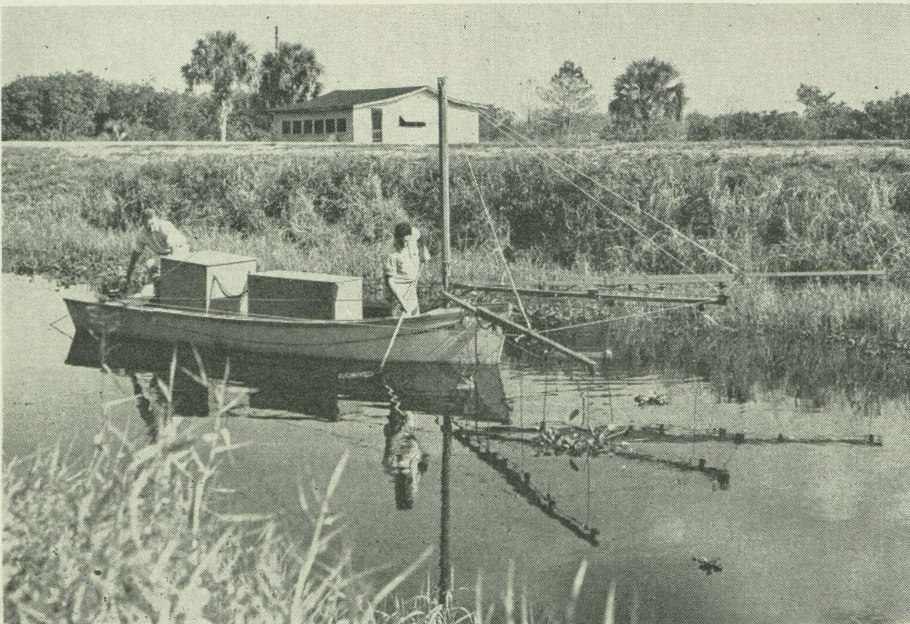
When I was appointed Director of the Florida Game and Fresh Water Fish Commission last April, I was immediately impressed by the close coordination between the Florida sportsman and personnel of the Commission. I don't believe I have ever before witnessed such fine coordination in this field and in view of this I feel certain that the operational program I am about to outline will not only be well received but will eventually see Florida as one of the great leaders in game and fresh water fish management.

The first prerequisite of any organization is its physical structure of composition. The channels of responsibility and authority must be

clearly defined and understood in order to maintain coordination and unity of purpose, policy, and program on a state-wide basis. This has been accomplished by delegating the formation of plans, overall program and policy matters to the administrative staff in Tallahassee; these plans are then approved by the Commission which takes official action as a unit or board, not as individuals. The regional offices operate as the functional or operational units, each responsible for carrying out the general program designed by the Commission and its administrative staff. The regional managers are directly responsible for all law enforcement activities in their areas, for certain phases of the educational and game and fish management program, and for supervision of the care and use of equipment. The necessity for this type administration is obvious. We should also point out here that these administrative procedures are patterned after a standard plan formulated and adopted by Game and Fish Administrators in the International Association. Effective state programs must generally follow a common pattern in order to design uniform interstate procedures for conservation of migratory species, development projects on boundary waters, and mutual problems concerning interstate rivers.

Next is the establishment of working channels and the employment of competent personnel and provision for their training in each of the many trades and professions involved. The annual school of instruction and refresher course consisting of one week sessions provides the basic training. Regional meetings at least quarterly will round out the instructional program.

Improvement and implementation of the merit system for department employees is an integral part of the administrative program which will insure continuity of planning and aid in security of the individuals employment. The initiation of these procedures will result in higher standards of service rendered by the Commission and a more satisfactory public attitude toward the entire program.



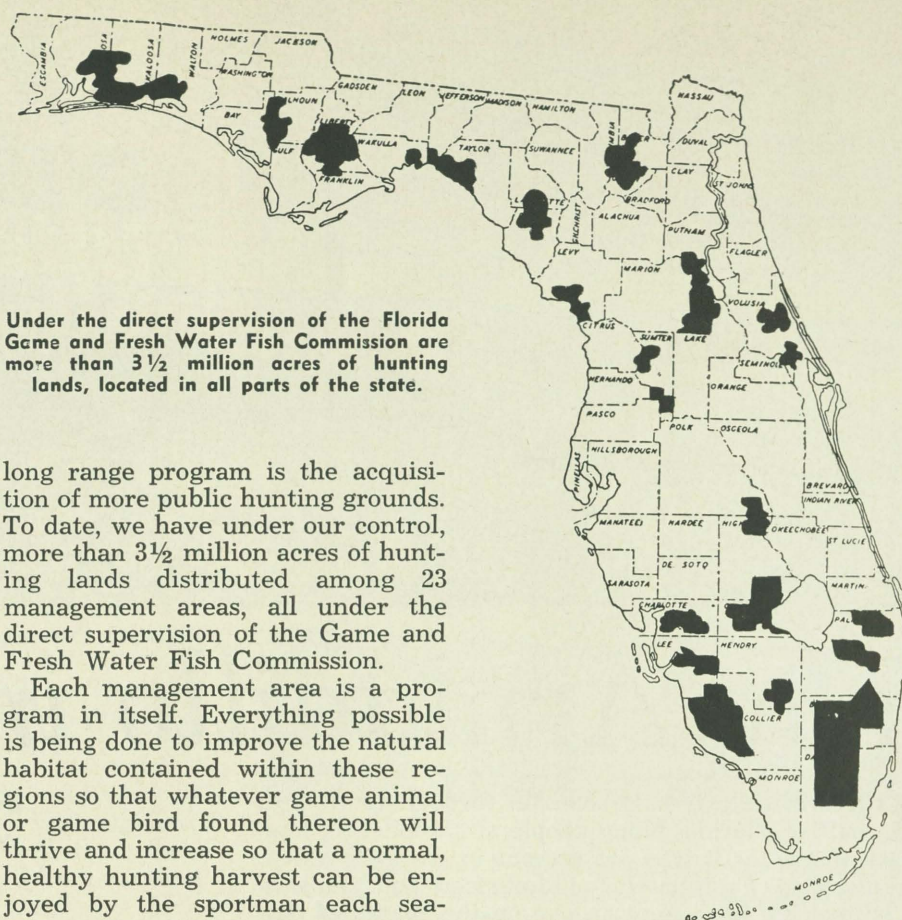
Electrical rough fish control has been the object of a good deal of attention during recent months. The "shocker" gives promise of developing into an extremely useful fisheries management tool.

Such improved mechanics of operation will result in better protection for and production of Florida Wildlife through expanded development of public game management areas and more intensive use of those now in operation. We plan to continually improve the projects dealing with hyacinth control and supervised elimination of undesirable fishes by selective drugs, electrical apparatus and seining.

Research is an important phase of any program and will be carried on largely through the P-R and D-J programs, which cover of course, both game and fish problems. Cooperation with college and universities in the state to utilize their facilities is a matter of policy. Likewise cooperation with other state and federal agencies requires considerable time and study on interagency coordination in many phases of conservation.

Law enforcement is always a major concern of fish and game administration. It is costly and often causes misunderstanding between the public and the department. Our policy shall be to constantly strive for prevention of violations through teaching observance of the laws, at the same time dealing severely with the habitual or malicious violators. Our officers are being trained as service agents of the state ready to perform any public service in connection with the over-all program of the Commission. Theirs is the task of securing that public understanding of the true meaning of wildlife conservation and the necessity for rules and regulations governing its management. Law enforcement is therefore a key responsibility.

Another important part of our



Under the direct supervision of the Florida Game and Fresh Water Fish Commission are more than 3½ million acres of hunting lands, located in all parts of the state.

long range program is the acquisition of more public hunting grounds. To date, we have under our control, more than 3½ million acres of hunting lands distributed among 23 management areas, all under the direct supervision of the Game and Fresh Water Fish Commission.

Each management area is a program in itself. Everything possible is being done to improve the natural habitat contained within these regions so that whatever game animal or game bird found thereon will thrive and increase so that a normal, healthy hunting harvest can be enjoyed by the sportman each season.

Here again, close coordination between the general public and the Game Commission is a big factor. In order that these management areas might successfully flourish, the hunter must be acquainted with the prevailing conditions and be willing to cooperate with the regulations as set forth. These regulations are instigated for a definite reason and for the benefit of you, the hunter.

If you hunt or fish in Florida, you

are naturally interested in the work being done along these lines. You can enjoy these outdoor pursuits a great deal more if you are aware of what is being done for you and why it is being done. You can increase your knowledge of these activities in several ways

First of all, the Game Commission has among its many departments one called the Information and Education Division. Under the

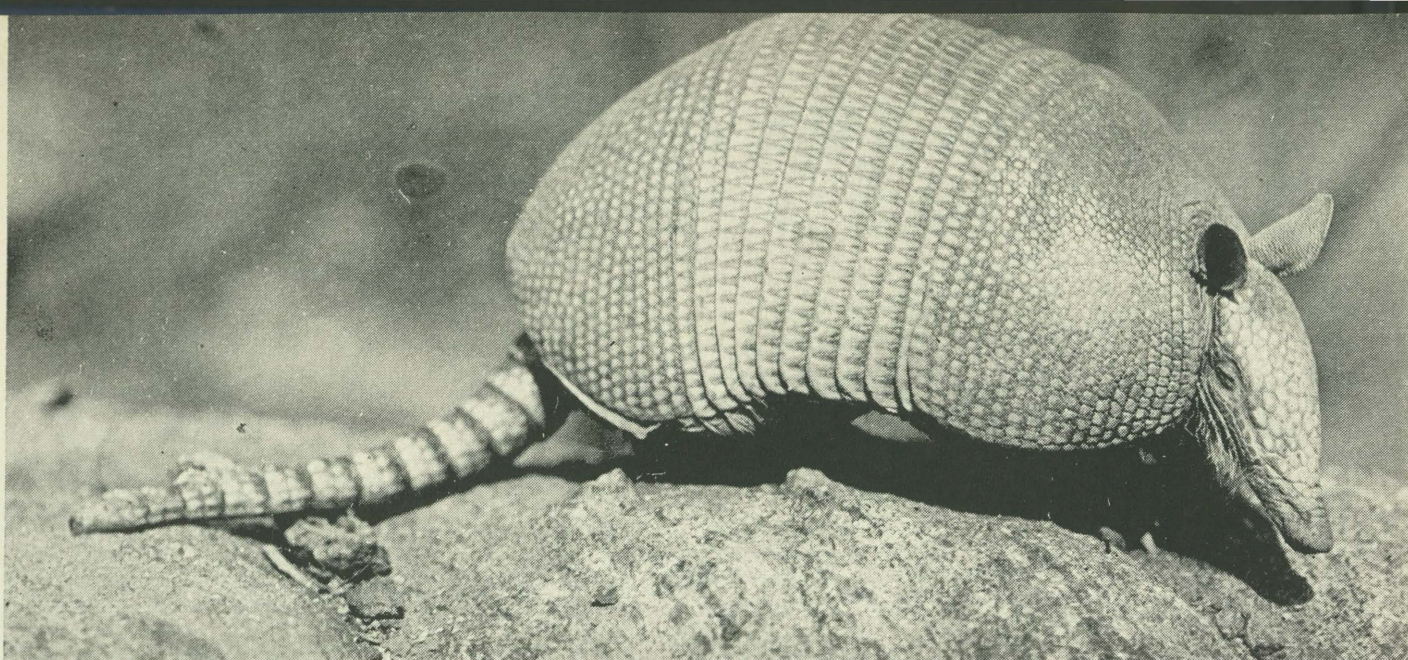
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A flat-bottomed air boat such as this one used by the hyacinth control crew can operate in depths of only a few inches.



Spray plane—the most efficient and effective method of applying herbicides.



NEW YORK ZOOLOGICAL SOCIETY

The Armadillo in Florida

The armadillo is now common throughout a large part of Florida. Many people are wondering how it got there, for it was not present in the state a few decades ago. Fortunately, outdoorsmen and students of animal life have kept an eye on the spread of this animal, and we have a pretty good idea of when and where it was first introduced.

The armadillo, a native of Mexico and the southwestern United States, has often been kept in captivity, for it is a strange-looking but inoffensive creature. Roadside animal shows frequently display armadillos, which often as not manage to burrow out of a flimsy pen. Thus, escaped armadillos have turned up at scattered localities in Florida for many years. In 1922 one of these animals was caught near Miami, Dade County; and in 1924 a female with young was killed in the same area. However, the armadillo apparently did not become established in the Miami region at this time. In 1922 a couple of armadillos were seen at Williams Point, on the East Coast in Brevard County; they were thought to have been a pair that had escaped near Cocoa several months before. Another is known to have escaped near Cocoa about 1924. Soon thereafter, more and more of the creatures began turning up on the Florida East Coast, apparently spreading outward from Brevard County.

One was killed at Flagler Beach, Flagler County, in 1934, and one caught at Titusville, Brevard County, in 1936. By 1938 the armadillo was found six miles south of Indian River City, Brevard County, and as far north as the vicinity of Crescent City, Putnam County. In 1941 a specimen was found at Pinemount, Suwannee County, suggesting that the animal had been able to cross the St. Johns River, perhaps on a

By **ROSS ALLEN** and
WILFRED T. NEILL

Ross Allen's
Reptile Institute
Silver Springs, Florida

bridge. By 1943 armadillos were common in four counties — Brevard, Volusia, Flagler, and Putnam — east of the St. Johns, and there was a record for South Jacksonville, Duval County. Seemingly, for a time the river acted as a barrier to further spread. However, soon thereafter this hardy animal had ranged southward around the headwaters of the St. Johns, and then erupted into Central Florida.

The distribution at this time was checked rather closely from reports of game wardens, compiled by the Florida Game and Fresh Water Fish Commission. By 1949 the armadillo was well established not only in the aforesaid counties, but also in St. Johns, St. Lucie, Martin, Okeechobee, Osceola, Polk, Orange, Seminole, and Lake Counties. There were also scattered records from Hamilton, Alachua, Marion, Sumter, Pasco, Manatee, Hardee, DeSoto, Lee, Hendry, Palm Beach, and Broward Counties; and in many of these areas the armadillo soon became abundant. By 1951 it had covered most of the state, except for the western portion of the Panhandle and the swampy southern portion of the peninsula. This is a remarkable spread to have taken place in about thirty years.

While all this was going on in Florida, the armadillo was also spreading eastward from western Texas. It pushed into East Texas, Louisiana, then Mississippi

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KNOW YOUR WILDLIFE

COON HUNTING

By BERTHA HAYDEN

THE HOUNDS made for the old worn and tattered seat in the back of the old Ford, there to curl up, glad of the warmth and protection from the misty, cool, wet January night.

The cylinders of the engine made small explosions in her ancient insides. The headlights cut a path of light down the road, catching and holding the tops of the trees in silver patterns of light where heavy beards of moss lay wet with the evening's rain. The night gave you an odd feeling of tension and expectation.

"We'll most likely find ol' Ring-tail up near the far end of Beven's Creek," Orr Kinsley predicted. The direction lay west of the stabbing point of his glowing cigarette.

"The creek will be bank-full tonight, too, with all this rain," he added. "We'll start in by the ridge and put the hounds out. We'll walk on into the woods while we wait on 'em, and keep the chill from curdling our blood."

He braked the Ford to a stop on the top of a slight knoll of tall pine and oak trees. The hounds just tumbled out, in their eagerness to get going, leaping over brush and logs and on into the woods. The palmettos rustled as the hounds combed the timber through the brush and scrub. This was a thick fringe of dense Florida jungle, where great canopies of grape vines parasoled the top of the swamp trees.

Then out of the thick soupy mist of the night rolled one single high note. It was Spike, the reddish-brown hound.

"That's Spike, and he don't sound false alarms, he's smelled coon! That's him. I know it!" Orr's quickened stride toward the swamp told his eagerness. The car's headlights pierced the mist. Rifles were held in firm grips.

"That's Spike all right, he's sure now. It's deeper. There, that's Queen. She's backing him up," said Paul.

"They're getting more excited now, moving over by the creek in the trees. Ring-tail can't fool ol' Spike, not that red-brown hound-devil." Orr spoke with new interest and high excitement.

The hounds were moving faster now and their baying grew wilder and more intense. The night sang with their baying, the echoes rolling back from the swamp. "Ring-tail can't fool ol' Spike!" It was music to the men—made their blood warm with the increasing chase.

Ol' Ring-tail was making heel ball tracks, but this wasn't enough. "Got to fool them fool hounds," he growled. "I'll have to pull some of my tricks. I just got to think faster—or run faster!"

Then above the rustle of bushes sounded the snarl of a cornered coon. Then the angry yelp of a hound as Spike spoke up in the deep broken syllables of the tree signal.

The men plowed through the mud and bushes, on through the palmettos. Their lights pierced the red



eyes of the coon, backed up against the log, standing erect on his hind feet with his back braced against the log. He was ready for battle, snarling harshly and the hounds faced him, baying in deep anger.

The coon meant to bluff his way. He wasn't going to let the hounds wade in and cut his retreat off from the creek.

As the men moved closer the dogs became more excited and closed in.

"It won't be long now," stated Orr, and it wasn't. That little coon didn't have a chance. There was the swing of the rifle-barrel and final mercy for little ol' Ring-tail.

"Where in damnation did Spike go?" Orr shouted angrily.

"Over that log." Paul's finger pointed straight to where the swamp was thick with cypress pressed in to mingle with mud and water.

The trailing was slower now. The men began to slosh in water and mud. Queen's voice, floating back uncertain, was turning from the creek. Then Spike's cry of the trail of new coon tracks near the creek!

The high new note of Spike's told them that Ring-tail had crossed the creek along up the bank. He had gone up a tangle of grapevines, through thicket and swamp brush and small trees. But Ring-tail hadn't stayed there. He wanted to leave no trail on the ground so he made up his mind to swim that creek and then double back up the creek and head back.

The hounds quit barking and kept flouncing around in the swamp. When they spoke again, they were higher up into the timber.

Spike's clamor came in sudden eager song, strong and confident. Orr and Paul went across the palmettos and scrub thicket at a stumbling run. But before they reached the hounds the baying ceased, suddenly receding into thin air, oddly, sieved by the cold dawn wind.

"That's queer baying to me," Paul said looking

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GOOD NEIGHBOR BASS



R. H. Stover displays a bag of bass, part of the shipment of Florida largemouths sent to Central America. (Photo by Carpenter.)

TO THE AMERICAN employees of the United Fruit Company in Honduras, the lakes of the Central American republic were a piscatorial disappointment. Except for the backdrop of high forested mountains, many of the lakes of Honduras bear a striking resemblance to the myriad lakes which dot the Florida landscape. The waters, supporting dense stands of such familiar aquatic plants as cattails, water lilies, lotus, maiden cane, eelgrass, and coontail, looked "bassy," but looking that way is as far as it goes. Favorable though the habitat appeared, disappointed anglers learned gobies and cichlids plus a variety of top minnows and other forage fishes, none of which could be termed "game" species, constituted the fish population of the area.

Two years ago, Mr. Alphonse C. Chable of the United Fruit Company's Research Department at La Lima, Honduras and William M. McLane, Fisheries specialist of the Florida Game and Fresh Water Fish Commission began correspondence regarding the desires of the Honduranian Government and American employees of United Fruit Company regarding the possibility of obtaining a suitable game and food fish which might prosper in the waters of Honduras.

In 1954, the proposed project evolved into an arrangement between Americans in Honduras and the Florida Game and Fresh Water Fish Commission. During 1954 and 1955 shipments of fingerling bass were made to Honduras.

Selected as the site for the initial attempt at establishing the largemouth in Honduras was Lake Yojoa, located approximately 58 miles westward from San Pedro Sula. The 24,000 acre lake lies at an elevation of 2,500 feet. The climate is similar to that of southern Florida.

Polyethylene plastic bags containing 2 gallons of water and a small amount of a chemical mixture held 35-39 fingerling bass each. The sealed plastic bags were packed in double cardboard containers for shipment. (Photo by Orin Fogle.)



The 1954 stocking consisted of 600 fingerling bass, from 2½ to 3 inches in length. Mr. Albert Wilson of the U. S. Fish & Wildlife Service hatchery at Welaka provided 400 of the fish and 200 were obtained the day before shipment from the St. Johns River. No charges were made by the Game and Freshwater Fish Commission for these services, the recipients paying the shipping costs.

The fingerlings were evenly distributed among 22 lard cans, each of which contained 2 gallons of water. The lids were sealed tight with no air holes. Eighteen hours after loading, the fish were in Honduras. The loss of fingerlings was 6 out of the 600.

The second stocking was made in May, 1955 when approximately 2300 bass fingerlings ranging in size from 3 to 4 inches were shipped to Honduras. For this shipment a different technique was employed. Instead of the metal cans, polyethylene plastic bags of .004 inch thickness were placed in double corrugated cardboard cartons. In each bag was placed exactly two gallons of water and one level teaspoon of a solution consisting of a sulfa drug and Acriflavin, mixed in the proportion of 1 ounce of Acriflavin to 1 pound of Duatox and 1 gallon of water for the stock solution. Then 35 to 39 fingerlings were placed in the bag, which was twisted, folded, and sealed with strong rubber bands which held in the water and air. The cartons were then folded shut and sealed with gummed tape. A total of sixty-two such cartons were employed. The shipping crew, Bill McLane, Mel Huish, Bill Woods, and Guy Garret worked long and rapidly in order to make the take-off deadline.

At 7:00 A.M. the shipment left the TAN Airlines terminal in Miami and arrived at San Pedro Sula, Honduras, about noon. The fish were then transported by truck over rough rocky roads to Lake Yojoa where they were distributed among several different major habitat areas. The loss of fingerlings during the 18 hours in the shipping cartons amounted to only 35, and these were in four of the plastic bags which had leaked either as a result of improper sealing or through punctures.

The conservationists of Honduras and the United States have done their part, the rest is up to Mother Nature. Perhaps it will not be too many seasons before the good neighbor bass will be making friends of Honduranian sportsmen. **END**

AUGUST, 1955



The fingerlings are being unloaded at San Pedro Sula, Honduras. They were immediately transported by truck and boat to the release site. (Photo by Carpenter.)



Above: Lake Yojoa was selected as the site for the initial attempt at establishing the largemouth in Honduras. The 24,000-acre lake is located approximately 58 miles westward from San Pedro Sula.

Below: R. H. Stover dumping a bag of fingerlings into Lake Yojoa. (Photos by Carpenter.)





L. Neil Bell, Assistant Project Leader, displays a bull frog taken from the Everglades Impoundments area.

this portion of the problem was given priority. In order to obtain a basis for comparing current frog production with the situation as it existed in past years, it was necessary to interview as many froggers and frog dealers as possible, examine whatever records were available, and thus arrive at a conclusion based on an average, so to speak, of the information thus obtained. Nightly checks of the catches of froggers and inspection of the collections of frog buyers plus counts of airboats in operation over a considerable period of time serve to give a reasonably accurate picture of conditions which exist at the present time.

In his September 1954 report to the commission on this phase of the work, Gene Wallace, Project Leader of the Everglades Investigation said, "We find that the average frogger now comes in with a nightly catch of 30 to 35 pounds of frog legs. These he sells to the buyer at the present price of 80 cents a pound so that his work is worth about \$25.00 for the night. At other times of the year the frogger may get up to \$1.25 a pound. It is not uncommon to harvest one hundred pounds a night at certain times. One interviewed frogger averaged a hundred pounds a night for two weeks when the market was \$1.25 a pound, which means that he was grossing \$125.00 a night, or more than \$1500 for that brief period."

Since airboats are operated under a permit system, the number of boats in a particular area is readily determined. During the fall of 1954 there was a total

MILLION DOLLAR LEGS

PICTURE, if you can, a collection of frogs stretched end to end in a line reaching from Pensacola to Key West and you will have some idea of Florida's present annual commercial frog production. Eight hundred forty miles of frogs; and those in a position to know state emphatically that this represents but a fraction of the yearly take as recently as 1948.

That the frogging industry is a sizeable one has long been recognized for frog legs are a popular food item with both tourists and residents alike. There were definite indications that the production of frogs had entered a drastic decline during post war years, although details regarding the extent of the decline and recognition of the resultant economic repercussions were nil.

At the June 1954 meeting of the Game and Fresh Water Fish Commission, it was agreed that a thorough investigation of the factors underlying the decline of this important but heretofore neglected resource was warranted. It was the hope of the Commission that appropriate restorative and management measures would be suggested by the findings of the study.

On July 1, 1954, a bullfrog survey was authorized as a part of Pittman-Robertson Project W-39-R, the Federal Aid sponsored Everglades Impoundments Investigation. Biologist L. Neil Bell, Assistant Project Leader of W-39-R, was assigned the frog problem phase of the project.

Since the economic aspect of the frogging industry was the main reason for the initiation of the study,

of 484 airboat permits in the Everglades Division. Many of these, perhaps a majority, are undoubtedly used at some time or another for frogging. The field checks and interviews with dealers indicated that 170 froggers were then operating in the area south of Lake Okeechobee. It is believed that the figure is a conservative one. Estimates on the total number of froggers in the state generally approach 300. This is the figure for commercial froggers only, men who derive all or most of their livelihood from frogging, and does not include the large number of airboat owners and others who frog part-time or for sport.

For the purpose of arriving at a figure which would represent the monetary value of the annual harvest, Wallace stated in the September report, "We have selected the conservative figure of 200 as the number of commercial froggers in Florida. Again being conservative we have used 150 nights a year (half time) that the average frogger operates. We also use the 30 pound nightly bag as an average, though as pointed out previously, it runs considerably higher at certain times of the year. It seldom goes below this figure either since the froggers do not go out when the frogging is poor. We also use the figure of \$1.25 per pound which is the present wholesale price (buyer to retailer). Based upon these figures we have arrived at the following totals; Annual commercial production 900,000 pounds of frog legs, representing a yearly harvest of 9,000,000 frogs. The wholesale value at this rate is \$1,125,000 each year."

These figures, of course, represent what is felt to be a conservative estimate derived from all available sources. To this could be added the take of part-time froggers. The sportsman's take is not estimated since it is difficult to derive and the frogs are not often sold. As more data concerning the harvest are obtained, it is expected that the annual production figures will have to be revised upward. There is evidence that as late as 1948 the industry annually grossed more than five million dollars.

As a result of the preliminary investigation into the economic phases of the frog business, it is now possible to give some basic reasons for the abrupt decline in production.

Frogging pressure is now greater than it has ever been. Hundreds of new airboats are now roaming the marshy lowlands. The froggers are having to take the smaller and younger frogs in order to fill their nightly bag. This continual disturbance and pressure on the frog population is not conducive to good breeding which further affects the future outlook.

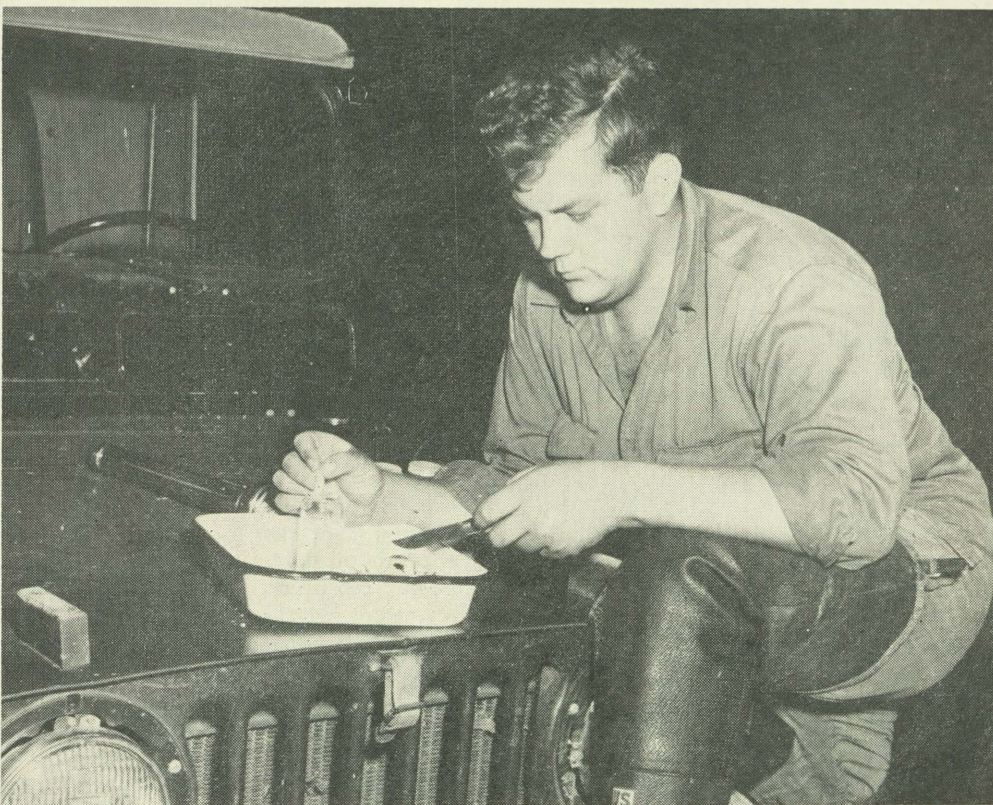
Another factor to consider is the day-by-day loss of our key frog habitat. This habitat is not only frog country but land valuable to furbearers, alligators, and waterfowl. A good example of habitat losses is in the Everglades region south of Lake Okeechobee. Here, improved pastures have been boosted 400 per cent since 1947 (from 44,000 to 186,000 acres) while general agricultural development has increased 80 per cent (from 170,000 to 303,000 acres). Drainage, diking, and other developments have similarly affected the Kissimmee and upper St. Johns river valleys.

The only solution is to protect, understand, and properly manage the habitat which remains. The commission has been invited to participate in the planning and operation of the vast Central and Southern Florida Flood Control District. This program encompasses 17 counties in three critical frog areas (Everglades, Kissimmee, and upper St. Johns regions). The Commission has executed a cooperative agreement placing nearly three-quarters of a million acres in the Everglades Conservation Areas under management for fish and wildlife.

How should we manage this vast acreage? Is the alligator, fur, frog, and waterfowl situation good or bad here? It is the intention of the Commission to answer these questions with the present overall Everglades Investigation Project of which the frog study is a part. As far as the



Details of the life history of the frog are important in formulating a plan for management of this important resource. Bell is opening a frog to determine the condition of the reproductive system.



Food habits studies comprise one phase of the frog investigation. In the above photo, Neil is placing the stomach of a bull frog in preservative for detailed examination in the laboratory.

frog is concerned there is little doubt that this species is being greatly affected. To what extent has not as yet been determined. As yet we still have frogs and we still have habitat. Perhaps it is not too late. It is apparent that this study was started at a most opportune time.

In addition to the economic sur-

vey of the industry, future management plans must be based on sound biological foundations. There has been relatively little scientific work carried out on the frog in Florida. It is obvious that in order to accomplish any results of a positive nature in the management of any of our

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A flock of snow geese take off from a wheat field near Administration Area, Naval Ammunition Depot, McAlester, Oklahoma, during early spring concentration.

G. I. CONSERVATION

By CLEVELAND VAN DRESSER

RECENTLY A BILL was introduced in Washington aimed at activating one of the greatest hunting, fishing and wildlife conservation programs ever instigated in this country.

As of now there are literally millions of acres of publicly owned land scattered in every state in the union, much of it fully capable of supporting good hunting and fishing. This land is composed of military installations, and every branch of the Armed Services is represented. If the combined areas administered by the Navy, Army, Marine Corps, Veterans Hospitals and Air Force were all joined together, they would easily make a good sized state.

Some of these military installations are immense. Eglin Air Force Base in Florida is over half a million acres in extent, and some areas in the western states are even larger than that.

WITH BUT FEW EXCEPTIONS, HUNTING, FISHING AND WILDLIFE CONSERVATION IS BEING IGNORED ON THESE HUGE AREAS.

The bill, introduced by Congressman Bob Sikes of Florida, seeks to develop the sportsman-potential of these great tracts of lands. The measure would affect millions of fishermen and hunters in every state in the union. In area for Florida alone, 64,000 acres would be affected, not counting Eglin Field.

Servicemen are not the only persons by any means who would enjoy improved hunting and fishing as a result of Sikes' bill. Every Nimrod and Izaak Walton in the land would feel its beneficial effects.

During the past several months I made a study of

military installations in regard to their hunting and fishing possibilities. I found that throughout the land there are only two such areas that have any official status as wildlife areas. One is the large Naval Ammunition Depot at McAlester, Oklahoma, and the other is Eglin Air Force Base in Florida.

By a special act, McAlester has been declared a wildlife refuge with a full fledged conservation program in force there. The program is conducted jointly by the civilian personnel at the Depot, the Oklahoma Game and Fish Dept. and the U. S. Fish and Wildlife Service.

Eglin Air Force Base has a wildlife restoration plan plus a public hunting program administered by base personnel. It is the only setup of its size on any military installation in the United States.

What I learned during my extensive tour was both discouraging and encouraging. The discouraging part was observing such huge areas virtually going to waste, so to speak. The encouraging part was the local programs in effect on some of the military bases, plus the obvious deduction that wildlife programs were feasible on most military areas that don't have them.

One of the principal ills connected with any concentration of men is the drain upon hunting and fishing resources of adjacent areas. I encountered repeated complaints from civilians on this score. In my opinion, such complaints are justifiable and understandable.

As every sportsman knows, public hunting and

fishing areas are becoming increasingly scarce. Just because a man dons a uniform doesn't mean he's given up hunting and fishing. And when you have several thousand men practically living under one roof, you're going to have heavy use indeed of any fishing and hunting facilities available. Private citizens howl lustily indeed when their fishing and hunting grounds are invaded by hordes of the military.

In some sections of the country, it has reached the point where outdoor editors don't dare print anything about a good catch of fish being landed in any particular lake or stream for fear the water will be overrun by men in uniform.

The GI can't be blamed for this unhappy state of affairs. It's not his fault he's stuck in a camp with several thousand other guys who like to hunt and fish and can't get away long enough to indulge in his favorite sport any distance from camp. He does the best he can, fishing and hunting whenever opportunity affords with the result that the areas available get worn pretty thin.

Hunting and fishing on military installations throughout the country today is carried on in a desultory fashion. It's pretty much up to the commanding officer of any given area. If he likes to fish and hunt, he can readily instigate and carry on a program in his own bailiwick. If he's not interested, these sports are virtually neglected.

Even though "military hunting"—so to speak, is on a strictly local basis, some programs in effect are truly remarkable. This is due in great measure to unstinted cooperation and assistance of the U. S. Fish and Wildlife Service and the various state game and fish commissions. Both of these organizations offer unqualified help to any request from the Military to start and maintain sportsmen's programs.

The exact number of military installations in the United States and their aggregate total in acreage is classified information. However, the Fish and Wildlife Service, the spark plug in most cooperative deals between the Military and the conservation agencies, estimates there are 80 Air Force bases alone that are large enough to support effective hunting and fishing programs. Add to that total the Army, Navy, Marines and VA hospitals, and you have a total acreage that is something to reckon with, a fact which has been pointed out before in this article.

The hit-or-miss arrangement now practiced in military installations has both good and bad points, from the sportsman's angle. Commanding officers are shifted fairly often, and it is not unprecedented to have an officer who has fostered hunting and fishing at one military base start another such program on another base when he is transferred. On the other hand, many a good conservation program has died from lack of attention due to the shifting of a disinterested officer from one base to another.

To get an idea of the potential involved for Florida in case the Military ever does decide to adopt fishing and hunting, let's take a quick look at what is going on in other parts of the country.

The McAlester, Oklahoma, setup is absolutely unique. It is a wildlife refuge, not a hunting area. Which means no hunting is allowed.

That's not as dismal as it sounds, for fishing, and plenty of it, is permitted. Furthermore, there is a natural overflow of surplus game birds and animals outside the refuge, and private citizens as well as GI's are getting the benefit of it.

The entire wildlife conservation program at Mc-



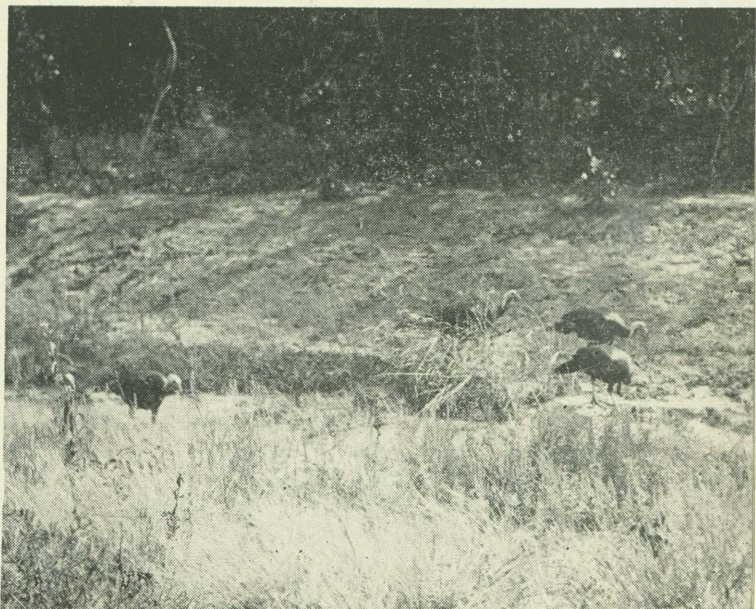
Small mouth bass were being stocked in the Chopawanisic near Quantico, Virginia, when this photo of marine conservation detail was taken.

Alester is in charge of a civilian, Dewey Johnson, chief of the maintenance division of the Naval Depot. His crews plant huge cover crops, build numerous ponds and lakes, and engage in extensive soil erosion work. Practically everything they do in the way of upkeep of the immense ammunition depot is done with an eye toward wildlife restoration.

McAlester depot was originally a hunk of beat up, eroded farm land interspersed with a few sorry swamps. Now it is rapidly becoming a wildlife paradise with quail, wild turkey, deer, waterfowl and other game roaming all over the place. To think of a wildlife refuge existing on an ammunition depot is fantastic, but it does, I assure you. I made a thorough inspection of the place with the express permission of the U. S. Navy.

(Continued on Page 41)

Wild turkeys feeding along roadside ditch on Naval Ammunition Depot, McAlester, Oklahoma.



POLLUTION

By DANIEL F. McCREA

REPRINTED FROM THE FISHERMAN

TO FISHERMEN ALL OVER THE WORLD, pollution is an ugly word. To Mr. John F. Eastwood, O.B.E., K.C., an English magistrate and an ardent fisherman, it was more than a word; it was the death sentence for freshwater fishing in Britain.

That's how it looked to him when, in the years following the end of World War II, he scanned the English countryside. The view was anything but pleasant. Industrial plants were expanding and new housing developments were mushrooming; both signified a bigger discharge than ever of effluent and sewage into his native rivers. To him it was evident that something must be done and quickly—to stem this rising tide of pollution. Otherwise, it was farewell to fishing, the most “quiet recreation God ever made.”

John Eastwood didn't agree that it was time enough to shake hands with the devil when you meet him. It was better, he argued, to cut yourself a big stick and set off to beat the daylights out of him. The question was: Where to get the cudgel?

He found the answer in the Common Law of England, in a passage that decreed that “any person who owned land along the bank of a river had an indisputable right to a free flow of pure water and to the free passage of fish.” This was more powerful than any stick. It was a gun. Now he was all set to battle pollution.

He was well aware that tough fights lay ahead of him. Already in his sights were nationalized industries (such as coal, steel, and electricity), civic corporations, and vast stock companies. Against such formidable opponents, with their enormous reserves of money to carry the fight through the highest courts in the land, no single riparian owner dare risk a legal action. If he lost, the costs would be more than he could stand. John Eastwood wasn't prepared to let this deter him. Despite the odds, he was determined to fight, if only he could get ammunition for his crusading gun.

He got it when, in January, 1948, he hit on the brilliant idea of having a group of people share the risk of a costly law action. Almost overnight it led him to the founding of the Angler's Co-operative Association which, fronting for all angling interests, aimed at using “every lawful means to prevent the spread of that pollution which threatens to destroy the fishing waters of Britain and to restore already polluted rivers to their natural state of purity.”

It was a noble ideal, but was it feasible? John Eastwood and his associates thought it was, and with no resources beyond an abundance of good will and



energy they tackled it. Backers volunteered to pay a percentage of the costs incurred by the failure of ACA in a legal action. (It is pleasant to record that to date these backers haven't been called upon to "fork out," for the very good reason that ACA has won all its cases.) Most of the guarantors have renewed their pledges; indeed some of them have increased their original percentage. The entire strength of ACA lies in these guarantees. Without them its ability to fight pollution would be limited by its current and inadequate bank balance.

And certainly it has shown its fighting powers. Its very first venture was a successful attack on a pollution that had been going on for thirty years before ACA came into being. Since that memorable day, ACA's calendar of achievements is a diary of success. Throughout England, Scotland, and Wales, it has attacked pollution of every kind. In its six years of life it has successfully handled more than 350 cases and has had the right of a riparian owner defined as the "right to have the water passing his property in its natural state unaltered in quality, temperature, or volume. Any alteration in the natural quality or temperature of water amounts to pollution."

As ACA tells its members, pollution can occur in a variety of forms. It may be due to the addition to the water of such things as acid, ammonia, arsenic, china clay, chlorine, coal dust, copper, cyanide, gravel, oil, or sand. If it kills fish, or if it makes the river unfishable, or if it damages spawning beds, it's pollution. Or it may be due to the extraction of some element (oxygen is a good example) normally present in water. As every fisherman knows, oxygen is essential if fish life is to flourish and water is to remain healthy. The discharge of effluent, rich in putrefying organic matter (for example, sewage works, textile factories or paper mills), or the discharge of hot water from cooling condensers in an electric power station removes oxygen from the water and, consequently, causes pollution.

Then there's bacterial pollution which can render the water unsafe for drinking, bathing or domestic purposes. ACA sums up the situation in announcing that it isn't necessary for fish life to be destroyed before a charge of pollution can be made. Even a change in the smell or the appearance of the water fits the conditions of pollution, as defined by ACA.

ACA had to fight in the courts to insure that these sources of pollution were clearly defined. It would be wrong to think that ACA likes going to court. Far from it indeed. It prefers to settle the issue without resort to law, and most of its cases have been successfully dealt with outside the courts. If polluters refuse to comply with ACA suggestions, however, or if they dispute the right claimed by the riparian owner, then ACA institutes legal proceedings. One of its outstanding cases was announced last February; the Consett Iron Company Limited challenged the right of ACA to finance legal actions by its members against polluters. The court ruled in favor of ACA.

Another great victory for ACA made legal history. It dealt with the pollution of the estuary of the River Dee. ACA won its point, namely, that upstream riparian owners had the right to protect migratory fish in estuarial waters. This was a victory not only for rod-

and-line sportsmen but for commercial (net) fishermen as well.

What is generally regarded as ACA's greatest victory appears in its records simply as "No. 122. River Derwent"—a masterpiece of understatement. It omits all reference to the vast amount of work done by ACA behind the scenes. From its thorough investigation of the pollution, it prepared a formidable array of irrefutable evidence, including pictures that convincingly illustrated the appalling toll to fish life. Then it went to court. The resultant legal battle which raged for fourteen days covered three forms of pollution: namely, by a poisonous trade effluent, by an overloaded sewage works, and by heat. ACA backed the Pride of Derby and Derbyshire Angling Association (a workman's club) and the Earl of Harrington in their successful action against the British Electricity Authority (a nationalized concern), British Celanese Limited (a civic industrial concern), and the Derby Corporation (a civic body). These were three mighty big birds to shoot down with a single barrel. The judge, in finding all three defendants guilty of pollution, said that the plaintiffs' portion of the river "was grossly polluted, the water being black and stinking, and the bottom covered with foul sludge and sewage fungus, and giving off foul gases."

He gave them two years in which to end their pollution of the water, and he added that he expected a lot to be done in those two years.

The report of this case hit the headlines. For the first time fishermen came to see that in ACA a champion of their rights and their sport had appeared. Unfortunately, many of them still don't appreciate how ACA operates in their interests.

In its quarterly publications, ACA has again and again declared that it cannot, under its own name, take legal proceedings against polluters. Under Common Law the action must be taken by the riparian owner or by the tenant of the fishery concerned.

What ACA can, and will, do is to provide expert advice, technical

help, and indemnity to all who require it in cases of pollution. Best of all, it will supply whatever money is needed by the owner or the tenant to have his right enforced by law. It aims to serve all fishermen either on public or private waters, whether they are rivers or lakes. At the moment, because legal aspects aren't favorable, it cannot lend its help to any person who isn't a member of the association.

While the primary aim of ACA is to check pollution, it manages to advance the interests of its members in a wider field. For instance, it co-operates with the police in combatting poaching, and it helps members to secure damages for loss of enjoyment of their fishing or for material or financial loss as a result of the pollution. In addition, it negotiates for the restocking—at the polluter's expense, of course—of the affected portion of a river to a degree similar to that present prior to the pollution. Now, thanks to ACA, many fishermen and fishing clubs that aren't members of the association are reaping real benefits. The removal of a source of pollution has brought an improvement in their fishing in the lower reaches of the polluted area.

But ACA doesn't stop at helping its friends. It even offers to help its arch enemies, the polluters them-

(Continued on Page 37)

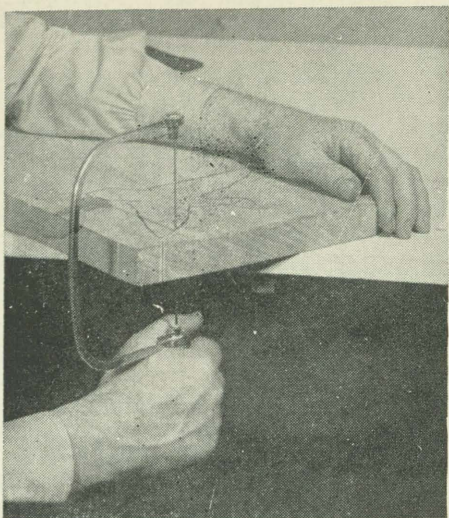
To Mr. John F. Eastwood, an English magistrate and an ardent fisherman, pollution was more than a word; it was the death sentence for freshwater fishing in Britain. He didn't agree that it was time enough to shake hands with the devil when you meet him. It was better, he argued, to cut a big stick and set off to beat the daylight out of him.

Mr. Eastwood found the big stick in the form of the Anglers' Cooperative Association which, although still small, is a powerful organization which combats pollution and attendant problems with "right now!" action and results.

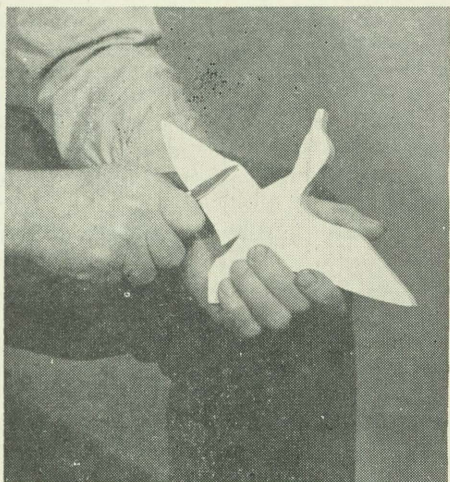
The success of ACA points the way to a possible solution of many problem situations which threaten health and recreation in parts of our own country. Perhaps an American version of ACA is what we need here.

GAME BIRDS F

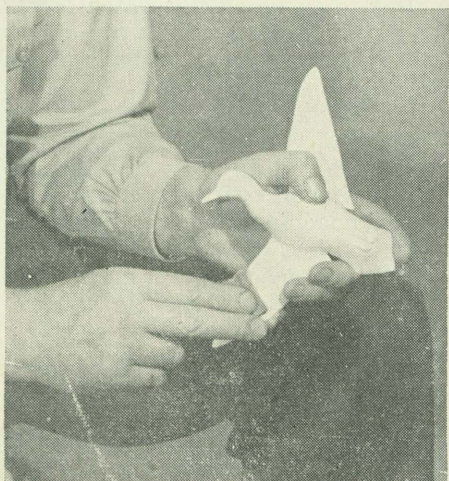
By E. R. AUGUSTIN, JR.



The pattern is traced on clear and straight-grained "five-quarter" pine or other soft wood in such a manner that the wood grain runs approximately from head to tail of the bird. The block is cut out with a coping saw as shown.



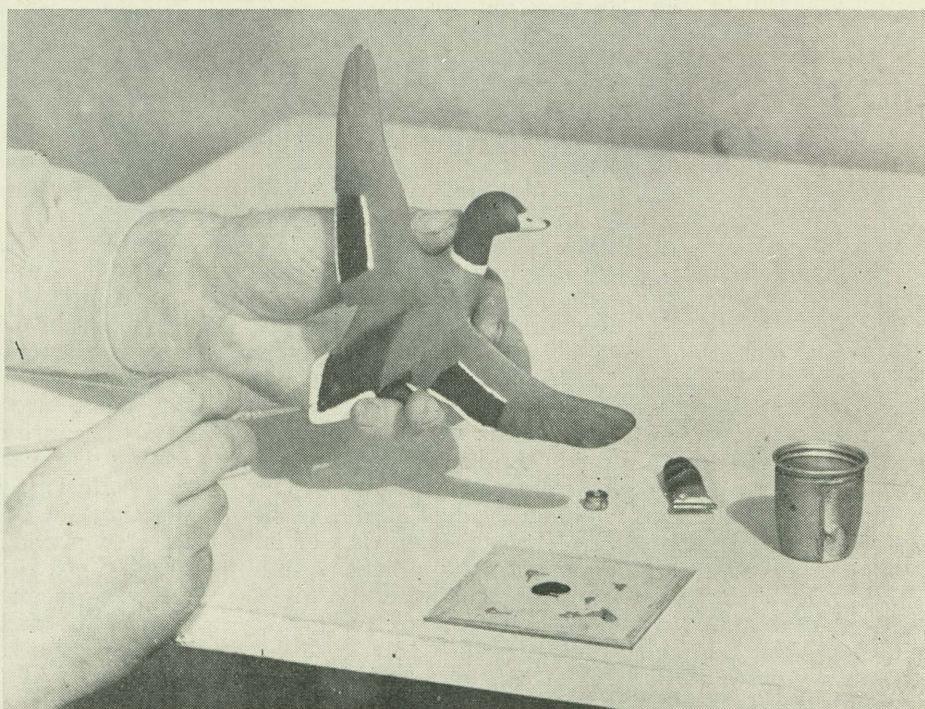
Most of the whittling is necessarily on the under side of the bird, but the outer side should be worked to proper shape before starting on the under side.



Before painting, sand the bird down to a smooth finish with medium and fine sandpaper. For hanging the bird, a small screw-eye is screwed into the body about where the man's thumb rests in the picture.



For coloring the birds use artist's brushes of small size and oil paints which come in little tubes. Paints may be mixed to obtain the correct colors. A mounted specimen or an authentic color illustration should be used as a guide in painting.



The finishing touches are put on a mallard drake. Suggestion of feather outlines on the white portions is done with light gray paint after the white is thoroughly dry. A small piece of clean glass is convenient for mixing small amounts of oil paints.

OR WHITTTLERS

WHITTTLING OUT game birds with your jackknife is a lot of fun, according to Hank Lentfer, Livingston, Montana, taxidermist. When Hank started out to whittle a duck on the wing he really did not expect to wind up with a large collection of hand carved and colored game birds. He wanted a couple of miniature birds to hang on the wall of his den and first thing he knew he was embarking on a new and fascinating hobby of game bird whittling. It is an inexpensive pastime which, with a little practice, brings very worthwhile results. Whittling a bird makes a fine project for cub scouts, Hank has found; and the colored miniatures make attractive gifts for hunting pals and others.

If you like to whittle let's round up the few tools and materials necessary and start in. The major steps are shown in the accompanying photos of Hank at work on a mallard drake. By carefully following Hank's instructions, as set forth below, your very first attempt should be successful.

First requirement is a suitable pattern for your project, a good game bird illustration in which the body of the bird measures 4 to 6 inches in length from head to tail. This is an easy size to work with. Hank finds the best source of patterns to be sportsman's magazines and calendars; many of his best patterns have come from outdoor book covers and illustrations. Your whittling material should be a piece of straight-grained pine or other soft wood, 1½ inches thick, and free of knots. Ordinary ¾ inch lumber is too thin for birds of 4 to 6 inch length, so ask for "five-quarter" lumber at the lumber yard.

With your pattern selected and the lumber at hand the first step is to trace the outline of the bird picture onto your piece of board, using pencil and carbon paper. (Hank often traces the pattern onto a sheet of white paper first as this is easily filed for future use.) In laying out the pattern on the wood block see that the grain of the wood runs lengthwise of the bird, from head to tail. The bird "blank" is now cut out with a coping saw as

shown in Figure 3. This is most comfortably done while seated at a table or workbench with the board projecting over the edge. With a sharp saw blade this is an easy operation. If you are cutting from a small piece of wood it can be held securely while sawing by clamping to the table edge with a C clamp.

The next step is where the real fun begins—whittling the blank to bird-like shape. Hank likes a well-sharpened 3 inch blade for this operation, and his main advice at this point is to take it slowly. Don't remove too much wood with one bite of the knife. As whittling progresses and the bird nears its final shape, lighter and lighter shavings should be taken. This will avoid a slip which might wreck the project. Hank starts his whittling with the wings, getting them pretty well shaped before going on to the body, the tail and finally the head and neck. The parts are worked on in this order, round after round, removing a little less material each

time until the knife work is finished. No attempt is made to carve feather outlines or other details; instead, the bird is given a smooth finish with sandpaper of medium and fine grades. If necessary, coarse sandpaper can be used to smooth out the knife marks and to accomplish the final shaping of head and neck. When this has been done a small screw eye is inserted in the body, behind the upper wing, so that the bird may be hung on the wall.

Painting your bird is the next, and last, step and for some this will be the most fascinating step also. For painting, Hank prefers the oil colors which come in small tubes, obtainable at most art stores and photo supply dealers. For the most part the colors must be mixed from two or more tubes and a color mixing chart will prove very helpful if you are inexperienced. The dealer where you buy your paints should be able to supply a color chart also. For mixing small amounts of paint an artist's small white palette will be required, or you can substitute a piece of clean glass laid on a sheet of white paper. The paint should be kept thick enough so that it will not run after it is put on. It is best applied with a small artist's brush, two or three of which will be needed.

Before beginning the actual painting, it is a good idea to outline in

(Continued on Page 36)



Game bird whittler, Hank Lentfer, and some of the wooden miniatures he has "put in flight." Hank finds the best source of patterns to be sportsman's magazines and calendars; many of his best patterns have come from outdoor book covers and illustrations.



FISH CONSERVATION FUNDAMENTALS

By R. W. ESCHMEYER

PART 6 CREATING MORE FISHING WATERS

IF THERE IS A big demand for a farm crop, that demand can be met partly by increasing the yield per acre through fertilizing, use of better seed, better cultivation, or by some other method or combination of methods. However, if the demand is great, it can be met mainly by putting more acres into the production of this particular crop.

In areas where fishing waters are few, we can help the fishing somewhat by managing these limited waters as wisely as possible. But, on even the best-managed waters, the production of fish is limited. The answer to heavy fishing demand, in areas with few fishing waters, is a simple one. The demand can be met properly by putting more acres into fishing waters. Fortunately, this fish conservation "tool" is getting more and more use.

The only alternative to creating more water would be to stock the limited waters heavily and repeatedly with catchable-size fish. While undoubtedly effective, it is a method which would be financed impracticable for warm water species; and, it would be highly costly for trout.

The new waters fall into three major groups; farm ponds, public fishing lakes, and reservoirs built mainly for purposes other than fishing. Getting access to existing waters, too, can be regarded as a part of the "creating-more-fishing-water" program. The several kinds of waters will be discussed separately.

THE FARM POND

So far as we know, there is no exact information on the number of fish-producing farm ponds in the United States. The best estimate seems to be that this number now exceeds a million, and probably approaches two million.

Any one of these ponds supports only a limited amount of fishing, but the fishing potential on the ponds, collectively, is immense.

If we had only a million ponds, averaging a half-acre in size, and they were managed to yield a hundred pounds of fish per acre to the angler, the catch would add up to 50 million pounds of fish.

If each pond provided only ten days of angling recreation, it would add up to one fishing day for each sixteen people in the United States.

A single pond may seem insignificant from the standpoint of national fishing, but the ponds, collectively, can and do contribute very decidedly to our angling.

There are still many problems; some ponds aren't built properly, some aren't managed intelligently, some are unproductive because of poor watershed management. But, these limitations are gradually being overcome by research and education.

Some farm pond advocates put heavy stress on the pond as a source of meat for the farmer. If our own rural background was typical, this argument has limitations. After a hard day of physical work, the farmer

may enjoy catching fish, but cleaning them is another matter. There was a time when this created no problem—when men caught the fish and the women folk cleaned them—but that day seems to be past. Chances are that the average farmer will take care of his meat problem by butchering a cow or hog at intervals.

The big future for the farm fish pond, as we see it, lies in its furnishing a cash income, by allowing others to fish the pond, for a fee. This will be true particularly during periods of low income from the regular farm products. The pond, admittedly, wouldn't be a big source of income, but such income would be an added value, with stock watering, recreation for the farmer's family, etc., as the major values.

THE CLUB POND

Many sportsmen's clubs have built fishing lakes, usually for use by club members. These are excellent projects. As a rule, they are bigger than farm ponds, though the problems are similar. The tendency is to expect too much from these ponds. An annual take of 100 pounds per acre would be well above average, because club ponds tend to be built on relatively unproductive (less costly) lands. For a club with a hundred members, this would represent one pound per member per acre per year. Of course, the pond could provide an endless amount of badly needed relaxation, even though the yield in "meat" is limited.

PUBLIC FISHING LAKES

A number of states are now using some of their fishing license and Dingell-Johnson (federal aid) money to build public fishing lakes, usually ranging in size from fifty to several hundred acres. A survey made by the Sport Fishing Institute in 1953 showed that some 163 such lakes had been built in the preceding five years, and that 70 more, averaging 120 acres, were under construction or in advanced planning stages.

The Alabama conservation department has demonstrated what can be expected from such a program, by keeping a record on its state-built fishing waters. In 1953 the state's eleven such waters (total acreage 591) attracted 100,183 fishermen (fishermen-days), and yielded 357,714 fish, weighing 99,871 pounds. This averaged out to 170 fisherman-days and 605 fish weighing 169 pounds for each acre of water. These lakes, built since 1947, are located in areas with insufficient fishing water, are fertilized, and are located in watersheds where they are relatively free from erosion.

In a number of states the lake-building program should have high priority. Of course, they will have continued good fishing only if properly managed.

Since we still don't know, in many areas, what constitutes proper management, it's essential that a good, down-to-earth fact-finding program accompany the lake building projects.

One item merits special consideration. There is a tendency to suggest building lakes on relatively unproductive land, because of the higher cost of land in productive watersheds. Despite the lower initial cost, this is a poor practice to follow. A study of two state built lakes in Tennessee, similar in size and construction, showed that one draining productive soil had an excellent fish yield. The other, in a nearby but unproductive watershed, did very poorly. In water, as on land, the amount on nutrient materials available largely determines the potential carrying capacity.

BIG RESERVOIRS

Here we have a controversial subject, mainly because of the tendency to be all for or all against dams. Some have been highly beneficial to fishing; some have been harmful. You can't generalize on the effect of dams on fishing; each dam or potential reservoir must be considered separately, along with the present or proposed operation program for that particular body of water.

For example, dams built for other purposes have greatly increased the fishing in the South, from Texas and Oklahoma to the Carolinas. They have been detrimental to fishing in other areas, particularly in the Northwest. Here, construction of high dams threatens extinction of important anadromous species of salmon and trout.

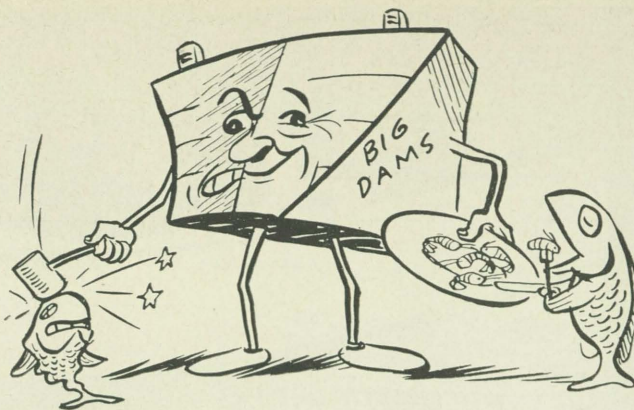
In the Tennessee Valley, after impoundment, fishing increased 45 to 50-fold on storage waters and 10 to 15-fold on the mainstream. This survey was made some years ago; on some waters the fishing intensity has increased rather decidedly since that time. For example, fishing in the TVA tailwaters below the mainstream dams has been rising steadily. Daily counts for the 1954 fiscal year showed 966,334 man-days of fishing immediately below nine mainstream dams. This was nearly three times the 1947 estimate of 339,000.

Because of the dam-building program, fishing in parts of the South is much more extensive, and more successful, than it was twenty years ago. The improvement was by accident, not by design. It happens that here good fishing waters were few in pre-impoundment days. Too, in a normal year, operations do not prevent the development of a fair-sized crop of fish. Major drawdown is in winter, when it interferes little with fish populations. At spawning time the reservoirs are filling, with water levels generally rising slowly. Erosion is limited enough so that the waters are not too muddy over long periods of time for good fish production. In waters where insects are few, good production is possible, nevertheless, because the main food chain (for desired species) is microscopic food to shad to crappie and black bass or white bass.

Despite the constant increase in numbers of reservoirs, insufficient fact-finding effort goes into these waters. Research might well point the way to improved fishing in some reservoirs which now provide poor angling.

Usually, the success of a reservoir for fishing hinges on the condition and fertility of the watershed. If the silt is kept on the land, and out of the water, the chances for having good fishing are greatly increased. Muddy waters don't provide good fish crops.

Where dams are installed and operated for hydro-power, flood control, or irrigation, the over-all management program should give proper consideration to the



fishing interest. We know of few instances where such consideration is given. This may be due partly to our lack of knowledge regarding proper reservoir management from a fish production standpoint.

PUBLIC ACCESS

In effect, we are creating more fishing water when we provide access to waters which already exist. A number of states are now giving high priority to the problem of providing public access. This problem will increase as the population grows, and as land values rise.

An owner who might allow limited public use, might install "no trespass" signs when that use increases considerably. Unfortunately, in any sizeable group of anglers, we can expect a small number of them to have little regard for private property. These are the ones who clutter up the landscape with cans, paper containers, and other debris.

The alternative to free access is the buying or leasing of land and water by the state. It's a costly program in areas of high land values, but it will be even more costly as the population increases.

CLOSED WATERS

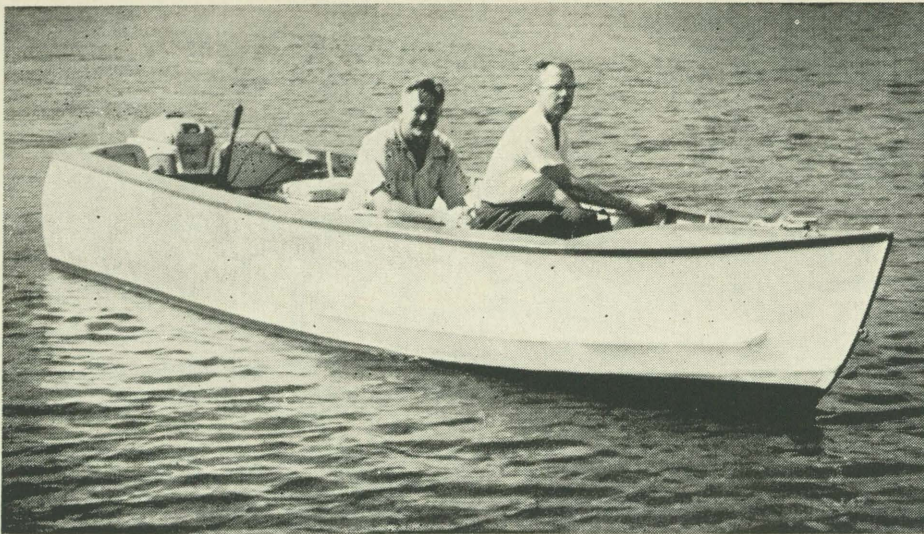
Some water supply reservoirs are open to public fishing, others are not. San Diego's water supply lakes have been fished for over twenty years, with no indication that the fishing was harmful in any way to the drinking water. The city has regularly charged a small daily fee, which pays for enforcement of the sanitary regulations imposed.

Where water supply lakes are closed to fishing, as many of them are, the cause can generally be regarded merely as stubbornness on the part of the officials. They don't want to be bothered with public fishing. On municipal water supplies, sportsmen can demand that fishing be permitted, with sanitary regulations strictly enforced, and with the charging of a fee, if need be, to pay for the enforcement.

IN GENERAL

Some fishing waters are constantly being lost to the public by drainage, diversion of water, siltation, pollution, and posting. But, others are being created. A number of states now have much more fishing water than they had a few decades ago because of the extensive farm pond and public fishing lake building programs. In some areas, too, fishing has been increased through the building of reservoirs used mainly for other purposes, and through public access programs.

In the face of constantly increasing angling pressure, the "providing-more-fishing water" program is an extremely important one. END



Van and Bill take their new boat slowly through the narrow channel that connects their mooring spot with Tampa Bay waters. The high freeboard and remarkable stability of the craft permit parallel coastal trips in the open Gulf, whenever owners desire. With three adults, and fully loaded, the craft can do better than 20 miles per hour, yet without rising and pounding as many pleasure boats do under full throttle. Remote controls permit operating the boat from several positions.

“ONCE

By

EDMUND McLAURIN

Though there is no record of Confucius ever having said it, there is a saying that in the life of every man there is at least one woman — and a boat.

The last may be realized at any age, in the carefree school years of boyhood or long after senility has set in and happy boating days are numbered. Whatever one's age when it happens, first experience of owning a boat is also apt to leave a fellow a little wiser and often with a flat wallet. Boating, like courting, can be quite expensive.

But whatever the size, design, purpose, weight, speed and manner of propulsion of one's first craft, every man, especially if he is a fisherman, has an imaginary boat in which he mentally incorporates all the features he may have found lacking in his first boat investment, plus those admired in other craft and pet ideas of his own, the aggregate representing his acme of boat ownership. Many Florida fishermen are members of this group of dreamers. Dreamboats, they correctly caption their visions.

Unfortunately, many capable boat designers either are not fishermen themselves and, therefore, have little idea of all the features fishermen may want in a boat, or, of necessity, must create boats that can be marketed in such finished form that they have nautical appeal to the general public, fishermen and non-fishermen alike. Inversely, many fishermen — especially Florida fishermen — have some very practical ideas for boats, but don't always

know how to design or construct the boat of their dreams.

F. B. Van Dusan and Bill Peters, two very active fishermen among the large membership of the St. Petersburg Rod & Gun Club, were recently faced with that dilemma. They knew what they wanted in a fishing craft for their average-man pocketbooks, but they could neither draw the plans nor build their dreamboat.

Van Dusan and Peters took their ideas to Widd Hauber, a Pinellas county marine architect. "Forget all about the other boats you have designed and the stock models of popular brands", they told Hauber, "and design us a boat that will have all these features." They handed Hauber a long list.

A month later Hauber delivered the finished plans. Van Dusan and Peters were delighted. As they put heads together over the scaled blueprints, studying them time and again, they could find no flaws in their dreamboat. But there was one — a major one; Hauber had designed the boat, but he couldn't take time from his contracted jobs to build the craft himself! "Find yourselves a builder who is an old-time boat builder, or mariner, and who will build your boat to exact specifications", Hauber advised his clients.

Van and Bill found their man in 77-year-old Charlie Patterson, also of St. Petersburg. Patterson's record was impressive. The man was one of the first hundred persons in the United States to hold an airplane

pilot's license and a craftsman who once carved and balanced wood propellers by hand. After years of aviation construction work and of boat building for fishermen friends, Patterson professionally demonstrated his marine handicraft by operating a successful boat building industry at Gulfport, Mississippi. He retired a few years ago.

Patterson looked over the plans drawn by Hauber. Yes, he could build such a boat, but he would do it only if he could personally select all materials; have the assistance of capable Howard Holgren, another builder, and do the assembly work without a Sword of Damocles quick-delivery date hanging over the job. Van and Bill agreed to the contract terms, and Patterson, like an old-time cabinet maker, took his time in selecting and cutting his materials and did much of the boat's construction work entirely by hand. But when he and Holgren finished they delivered an exceptionally fine craft to their customers — a dreamboat come true!

The delivered job measures 16 ft., 9 inches overall; has a 6 ft. beam; 3 feet of freeboard forward; 22 inches of freeboard aft; a draft of about eight inches, unloaded; weighs approximately 800 pounds; is powered by anything from a ten horsepower motor upward, and transports easily on a car-towed trailer frame. With a 25 h.p. Johnson outboard, and carrying three adult passengers and full equipment, the craft will do better than 20 miles per hour.

Shape of the bow and side-spray deflector rails combine to give occupants a dry ride and even with the motor running at full speed the craft glides smoothly forward and does not alternately rise and pound as many fast-moving pleasure boats do.

Built-in features include an in-

TO EVERY MAN!"

terior-type, rubber gasket-sealed, aerated live bait well; a removable ice chest; a three tier tackle box; storage chests under the rear side seats; fishing rod racks, and decked-over bow compartment large enough to house a small spare motor, extra anchor, rope, signal flares, first aid kit and miscellaneous gear.

The live bait well takes in and discharges water at a rapid rate, but built-in baffles keep the flow from tiring or "burning" the imprisoned bait fish. When the boat is not in motion, the water supply is such that baits, like pinfish, shrimp or minnows, will remain vigorous for hours. The cemented rubber liner in which the bait well is mounted — the idea of Howard Holgren — provides a leak-free installation.

Well aware that many good fishing spots are ruined by noise emanating from a boat as occupants move about, Van and Bill wisely specified that strips of thick rug be tacked under the boat's removable flooring to reduce transmitted noise and vibrations likely to frighten fish.

The boat's bow stem, Patterson made from a single thickness of select-grade oak, water steamed and slowly bent to shape. Frames of $\frac{3}{4}$ " x 2" oak, spaced on 21" and 24" centers, were also painstakingly fitted.

In making the hull — 16 ft., 9" overall, with a 6 ft. beam — the builders incorporated five properly located oak knees and provided double-gussets for added strength. Also, every rib was bolted to the keel, supported by $\frac{3}{16}$ " x 4" square, brass angles bent to shape.

Two sheets of marine plywood, each 3 ft. x 16 ft., were used in making each side of the wide-V bottom, with practically no material waste.

For the craft's planking and decking, Patterson selected $\frac{3}{8}$ " thick, five-ply, marine plywood, and found that the fully developed side and bottom shapes made bending of the plywood easy and practical from a stress-and-strain standpoint — im-

portant in building any plywood boat.

Before the solid oak stern was cut out for the motor bracket, the width of the outboard motor of planned use was measured and proper space allotted, yet with a cut-out area that, in the finished job, hugs the motor fairly snugly and lessens the chance of a following sea entering the boat when the craft comes to a full stop.

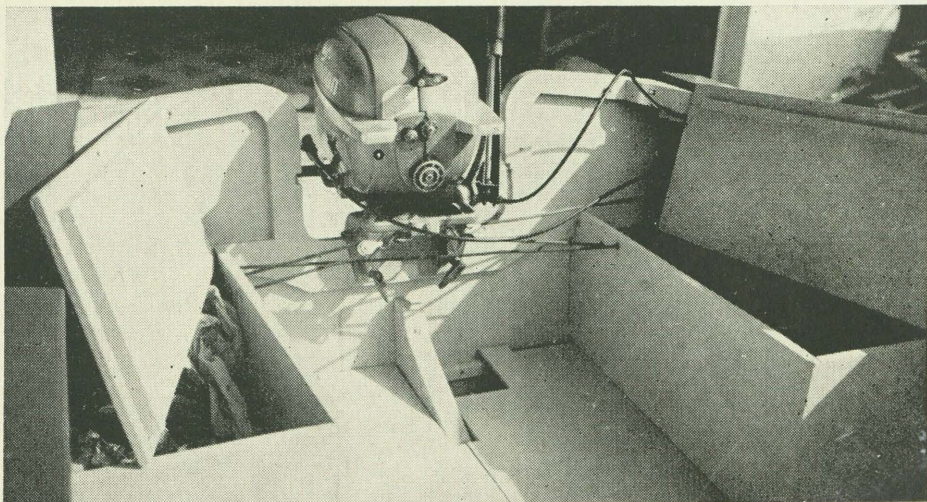
In preparing the boat for painting, Holgren sprayed a light coat of sanding lacquer over the entire job, to stiffen all wood fibres and facilitate sanding. With the rough wood made stiff and resistant to the No. 00 sandpaper, only one sanding operation was needed to obtain a glass-smooth surface — especially desired on the hull for reduction of water friction.

Another interesting fact is that only brass screws and bolts were used in the assembly work; not a nail can be found anywhere in the boat.

The owners find their specially-built craft perfect for inland fishing and parallel coastal runs — a low cost, but roomy, staunch, seaworthy family boat that will carry a big load. Occupants, the proud owners point out, can move around without getting in each other's way and without losing balance, and with all fishing and operating gear in provided-for space, not underfoot while fishing, a use for which the boat is admirably designed and adapted. Van and Bill generously offer their completed boat and the construction drawings for free inspection.

At the moment, the craft rides gracefully from mooring ropes at O'Neill's Boat Basin, on the St. Petersburg side of the majestic Sunshine Skyway Bridge, with no name painted on its bow, but by the time you read this the boat will likely have been formally christened — and, judging by the satisfaction and enthusiasm of its hard-fishing owners, the name may well be "Suits Us!".

END.



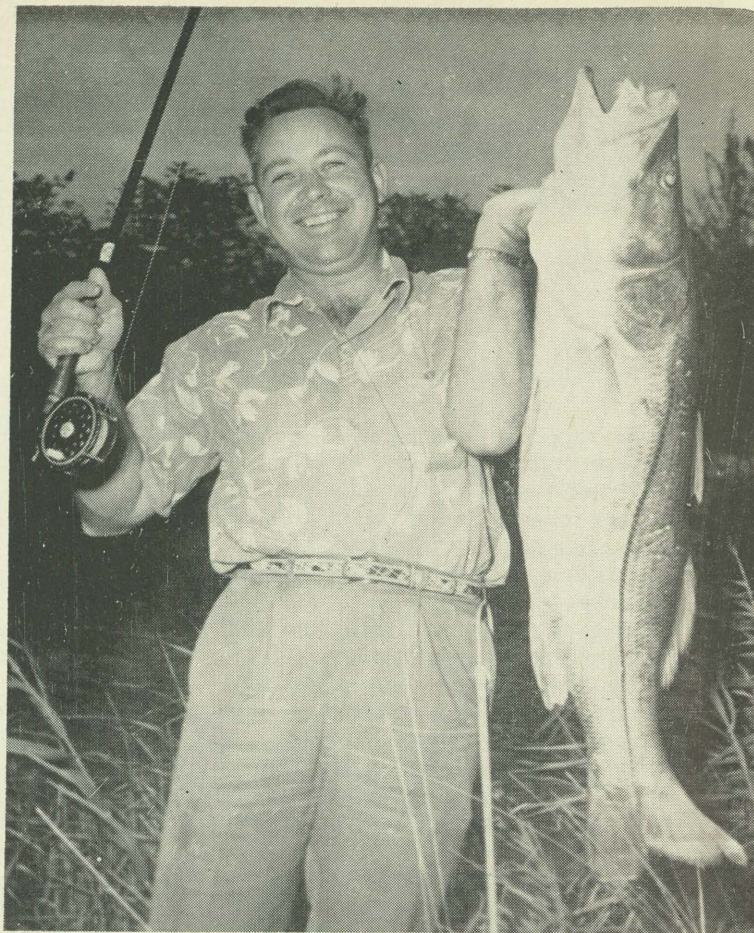
Roomy storage chests under the rear side seats were purposely provided for all the needs of planned fishing trips.

The snook is a wide lateral line surrounded by sharp weapons. He has a long, croc-like snout, the inside of which is bristling with teeth, the better to bite you with. And just in case he misses with those, he's got an ace in the hole, a purloined letter sort of thing, so obvious you don't notice it, namely, an extra sharp razor blade on each gill cover. So it's all right to pat him on the tail, but don't pet him on the cheek unless you want to come away with sliced fingers.

Besides such physical hazards, the snook has the mean disposition of a cornered rattlesnake and when he's in the mood, which is often, he'll powder anything you put near him. Maybe it's the knowledge that he looks like a cross between a 50 year old crocodile and a prematurely born wart hog that makes him so cranky. He must scare the scales off smaller fish. When he spreads his fins out to make a sudden stop he looks like an old time frigate ship at full sail. When he opens his mouth it is a cavern full of stalactites and stalagmites, no place for small fry to get sandwiched. So practically everything else that swims gives him a wide berth.

And with good reason, since snook are ferocious feeders. They slap into bait fish and inhale the small minnows by the dozen. They like mullet and crabs and will tear into Florida lobster and make a cocktail out of floating shrimp with relish. They'll snatch a fallen bird or newly hatched gator.

It's this two fisted feeding, hearty, noisy and indiscriminate, that makes the snook such a great game fish and has developed, here in Florida, a wild-eyed school of fishermen devoted to snook alone. They may know that there are other species, but they don't bother with them. They are snook men, period.



Proud of his fly rod catch is Doug Word, with an 18-pounder taken from the Tamiami Trail Canal.

SNOOK HEAVEN---FLORIDA

Some of these avid guys are specialists in certain ways of fishing for snook. There's one I know who only goes for them in canals, another who is strictly a bridge fisherman. Some use one outfit only, either plug, fly or spinning, and wouldn't be caught dead near a snook with any other gear. There is the extremely light tackle angler and the guy who hauls them in with an 18 foot cane pole and an 80 pound test line. But regardless of the place or the equipment, they are united beneath a common banner that bears a great, homely snout and proclaims the snook the greatest game of all.

There's no truer pleasure for a dyed in the wool snooker than to escort another fisherman on his first try for these babies. I'll never forget one northern friend I took out on a salty lake back in the 10,000 Islands of the Everglades. It was a wonderful dusk, a golden sun dropping fast.

I stopped the skiff and held it broadside about 50 feet out from the mangroves along the shore. I had rigged him up with a 9 foot fly rod, a GAF fly line and a 10 foot leader tapered to a 10 pound test tippet, to which I had tied a big, black bodied, yellow tailed popping bug. It was five inches long, with a 2/0 hook.

"Cast to the edge of the mangroves," I said. "And play the bug like you would for largemouth."

"Do these snook hit hard?" he asked, as he wound up and cast.

By JOE BROOKS

He got his answer straight from the horse's mouth. He was a good fly caster and the popper dropped just right. Before he could get the first pop off, there was a great splash and a noise like a cross between a punctured balloon and a horse pulling his foot out of a mud hole.

The snook turned slowly, majestically, aimed for the mangrove roots and then went into high and slammed into them like they had been soft pillows instead of iron fingers covered with coon oysters.

"G-g-golly!" said my friend as he reeled in his flyless, snookless line. "I-I-I—"

"What's the matter?" I asked. "You didn't used to stutter."

He pointed in toward the shore, where the snook had put up a final great swirl.

"W-W-W- one man sub!" he managed to say.

And he was a snook fisherman from then on.

No matter where you live in Florida, you can usually get into snook fishing in a hurry. They live in the salt around the entire state, and in brackish and fresh water as well. They inhabit bays and estuaries, the open ocean and enclosed sounds. They

like the canals that parallel so many Florida highways, and they like to bask in lakes, sloughs, ponds and swamps. Many a time you can hunt them out deep in almost impenetrable mangrove recesses, and again you find them in the bright lights around bridges in the heart of such big cities as Miami and Miami Beach. Just give him any kind of water as long as it is warm, sunny, Florida water, and old "many fins" is happy.

Snook hit best to surface lures just before dark and throughout the night, and on overcast days they will often hit on top all day. A slowly played popper or surface lure is usually best if they are coming good at all; but if that retrieve fails, try breaking it up, give the lure more speed and sample them for other tastes that day.

During the heat of a bright afternoon, snook generally go deep and then it pays to get the lure well down before starting it back, then make the retrieve in slow, foot long strips.

Occasionally snook will go on a terrific feeding splurge, hitting hard and often for an hour or two, and then suddenly nothing you offer them has any appeal. And when this rambunctious guy doesn't want anything, he doesn't want it just as violently as he ordinarily wants. Nothing that swims can play hard to get any better. In this regard, long time fishermen who know the reefs on the ocean side of the Florida Keys claim that there is a school of huge snook out there in 50 feet of water that nothing can tempt. What they are doing out there no one knows, but they certainly are not eating because everything has been tried on them. If anyone ever does discover the food that charms those savage beasts, he's going to have fun because of the tremendous size of those reef sitters.

Around bridges and pilings, snook seem to hit best just at dawn and there's a whole contingent of snookers who crawl creakily out of bed in the middle of the night, rush to a coffee shop, gulp down a mugful, and then drive like mad to the bridge they've been thinking about while they lay there wide awake till fishing time.

There's an extra thrill to the sound of a snook hitting a surface lure in blackness of a pitch dark night, under a bridge. It sounds like a steam engine with the burps, stirs up a fever that makes cold sweat stay static on your clammy brow.

And it's a fever that is contagious.

Once last winter I was all set for an evening of quiet reading when the phone rang.

"Last night, just when the tide turned," a friend's voice said, "the big snook went on a rampage. They ruined me! But I did manage to land a 14 pounder."

"Wrong number" I interrupted quickly, disguising my voice.

"Hold it," he went on. "Here's the pitch. Tonight they'll be in there an hour later—the tide, you know. You can pick me up and I'll show you where they are."

"You have the wrong number," I said very firmly, and hung up.

I went back to my book. I stayed on the same page for ten minutes, then turned it without knowing what I had read. I went back and read it all over again. The print blurred, and then I saw the outline of a big snook swim across the page in front of me. I put my hand to my forehead and it was clammy wet. I had snook fever again.

I gave up. I slammed down the book and reached for the phone.

"I'll pick you up," I said. "What time?"

We went out near Whale Harbor Bridge, all set up with popping plugs, good stout spinning rods and 8 pound test monofilament line on our reels. We anchored off to the side of the channel and started casting the plugs in to the bridge. On the first cast I popped the plug into the side of the boat and started to pick it up. Right behind it I saw the

wide open mouth of the biggest snook I've ever encountered.

My friend saw it, too, and almost fell overboard.

"That's the one," he said. "That's the one that broke me up last night, I bet!"

Well, he broke us up, both of us, that night, too. He and a lot of his friends had a fine time smashing our poppers to a pulp, and throwing them back at us as if it was a game, or else just snipping them off and taking them down to bury in Davy Jones locker. A couple of them we saw bob to the surface and go floating out with the tide. All together we lost six plugs and 16 fish. But we came in with a 12 pounder and two 8 pounders.

Some of the most sensational seasonal fishing to be found in Florida is provided to light tackle anglers when the big snook move into the Tamiami Trail Canal. There are always some snook there, but in March and April comes a run of 10, 15 and 20 pounders, moving up from the Gulf of Mexico, concentrating in that stretch of water between the Marco Road and the town of Ochopee.

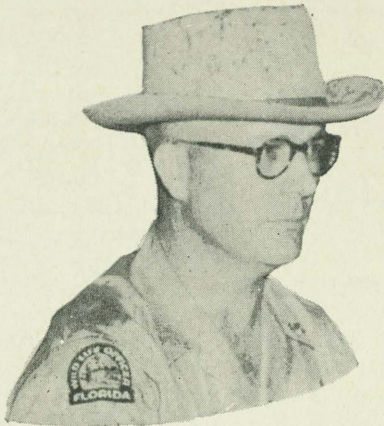
When word of their arrival reaches the snook specialists, they converge from as far away as Tampa and Key West, not to mention intermediate points like Miami and Naples. There is a mad dash by snook hungry fishermen and dozens of fly casters, plug casters and spin

(Continued on Page 42)



Form is important!

MEET YOUR COMMISSION



W. C. REEDER
Northwest Florida

W. C. Reeder has been employed by the Game and Fresh Water Fish Commission since February, 1949. A native of Calhoun County, he calls Blountstown home.

Mrs. Reeder is the former Estelle Dawson. The couple have one son, Bill, age 6.

Prior to his employment as a Wildlife Officer, W. C. served as a Deputy Sheriff for three years. He spent 4 years in the Army as a paratrooper and a combat Engineer.

He was appointed 2nd Area Supervisor of the Northwest Florida Region in October, 1953.

☆☆☆



BENJAMIN FRANKLIN REAVES
Central Region

Benjamin Franklin Reaves, Area Supervisor in the Central Region has been with the Commission for 8 years. During the past year and a half he has served in his present supervisory capacity.

Officer Reaves was born in Astatula, Florida, and has lived there all his life. After finishing school, he worked on the cattle ranges in that part of the state with the result that early in life he became thoroughly familiar with the territory in and around Lake county.

Ben served as Chief Deputy Sheriff of

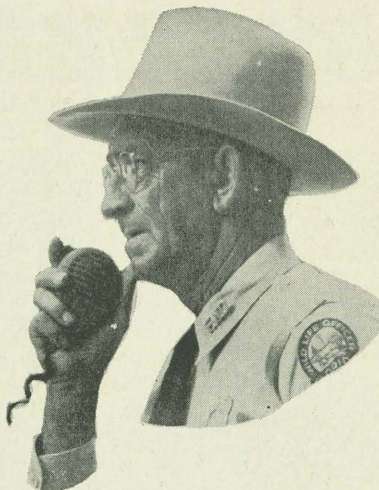
"Meet Your Commission" is presented with the objective of introducing to FW readers the men who comprise the Florida Game and Fresh Water Fish Commission. Prepared by the regional information and education officers, this new feature will, each month, introduce one employee from each of the five regions of the state.

Lake County for four years after which he began his career as Wildlife Officer in his home county. He was promoted to Area Supervisor in 1953.

Mrs. Reaves is the former Mattie Lillian Lovell. In addition to Ben and his wife, the Reaves family consists of Ben Franklin, Jr.; Rollins, Joseph, and Ollie.

Supervisor Reaves' area includes the counties of Orange, Lake, Osceola, Seminole, and Brevard.

☆☆☆

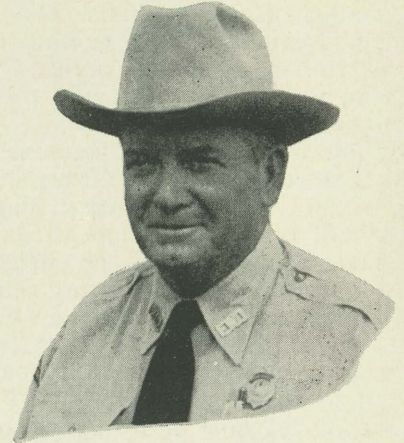


J. W. "JOE" SIMMONS
Northeast Florida

J. W. "Joe" Simmons was born in Albertville, Alabama, in 1899. In 1917, while he was still in school, the family moved to Archer, Florida.

Ella King of Archer became Mrs. Simmons in December, 1920. The couple's daughter is Mrs. Ruby Janes of Hawthorne.

In 1940, Joe went to work for the Game and Fresh Water Fish Commission in Alachua County. In March, 1946, he became Assistant Chief of the 2nd District in which capacity he served until he became Area Supervisor. His present territory includes the counties of Alachua, Gilchrist, and Dixie, the 9th enforcement area of the Northeast Region.



ENGRAM HAZELLIEF
Everglades Region

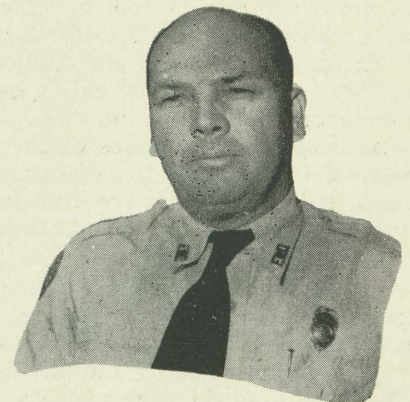
Engram Hazellief was born in Fort Basinger on May 3, 1904, but has lived in Fort Pierce since he was 18 years old.

Engram joined the Florida Game and Fresh Water Fish Commission in March, 1941, and, except for two years, has been with the Commission since.

Mrs. Hazellief is the former Haughty Mae Starling. The Hazellief's have four children, Walter, Haughty, Evelyn, and Mary Lou.

In March, 1952, Engram became Area Supervisor of that portion of the state including Indian River, St. Lucie, and Okeechobee Counties.

☆☆☆



ROSCOE "ROCK" GODWIN
South Florida

Roscoe "Rock" Godwin is area supervisor of the 12th enforcement area of the South Florida Region.

Rock is married to the former Maxine Janes. The Godwin's have three children; Arnold, Barbara Ann, and Linda.

Roscoe and his family live at Land 'O Lakes in the southern part of Pasco County. A native of the county, Rock has been in law enforcement work most of his adult life. He began his career with the Game and Fresh Water Fish Commission in August, 1937.



E. H. Hirtling, owner of Howey Boat Basin poses with Elmer Carpenter (right in photo above) and two-day limit of bass taken by Mr. Carpenter from Little Lake Harris. The fish range in size from 4½ to 10½ pounds. All were taken on live shiners.

Around

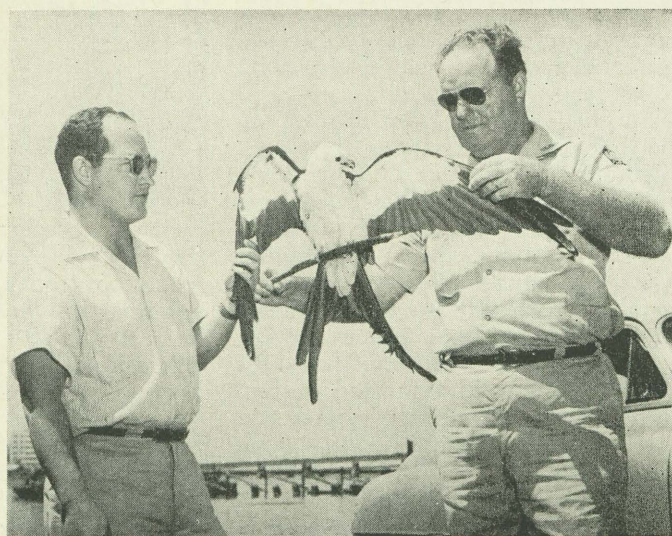


Jensen Savannas at Jensen Beach received 10,000 new residents in the form of 2½-inch, 2-month old fingerling bass transported from the Winter Haven hatchery during mid-June. The fry are being run off through the hatchery truck's discharge pipe in the photo above. G&FWFC personnel who assisted in the planting are, l. to r., Area Supervisor Engram Hazellief; F. W. Weston; Wildlife Officers "Pick" Woodward, and Phil Chandler.

The State



A. E. "Mac" McKee, West Springfield, Pa., displays a limit of largemouths taken in Crescent Lake on a recent visit to the "Bass Capital" area of Putnam County, Florida. (Florida Times-Union photo.)



Wayne Hook (left) FG&FWFC fisheries technician and Howard Stalls, Wildlife Officer, hold a rare swallowtail kite which was found injured near Hastings. After two hours of work on its broken wing, the bird was given to the Jacksonville Municipal Zoo and hope was high for its recovery. Second District Commissioner Gordon Granger said that, should the kite fail to survive its injuries, the specimen will be given to the Children's Museum to be mounted and kept there on exhibit.

JUNIOR CONSERVATIONIST

(Continued from Page 7)

Junior conservationist of the year:
Remember to keep on accumulating your points as you may be the Junior Conservationist of the Year. If you are unable to attend Camp, please send your qualified number of points to Denver Ste. Claire.

Top ten clubs for May:

1. Allapattah Optimist Junior Conservation Club of Miami
 2. Junior Everglades Conservation Squadron of Hialeah Lakeland Junior Wildlife Club
 3. Bartow Junior Conservation Club
 4. Bay County Girls Junior Conservation Club
 5. Leesburg Junior Conservation Club
 6. Bellevue Junior Conservation Club
 7. Pahokee Junior Conservation Club, St. Johns Junior Conservation Club of Deland
 8. St. Petersburg Junior Rod and Gun Club
 9. Dean Mather Wildlife Club of Ocala
 10. Perry Junior Wildlife Club, Keystone Heights Junior Conservation Club.
- END

CONSERVATION COORDINATION

(Continued from Page 9)

guidance of a state coordinator a well trained staff has been assembled to do exactly what the name implies, inform and educate. If you are seeking information on anything pertaining to Florida's hunting and fresh water fishing you need merely mail a post card or letter to the Department of Information and Education and the facts you desire will be returned immediately.

Another way to keep abreast of the times is to subscribe to the Commission's official monthly publication, Florida Wildlife. This magazine is published as a specific educational service and each issue contains many factual, technical and general articles pertaining to hunting and fishing. From these pages flow a wealth of information that not only help to keep you informed of our activities but does much to promote the better hunting and fishing practices so necessary to good conservation.

I now come to what I believe is the most important form of coordination between the sportsman and the Commission; join a Sportsman's Club. If you do not have a club in your town or community, organize one. We have prepared a publication called "How To Organize A Sports-



Above: Members of the St. Petersburg Junior Rod and Gun Club, supervised by Wildlife Officer Dick Bryant, clear a plot to plant quail food plants.

Below: After completing their quail food plot project, the members enjoy a meal provided by the senior club.



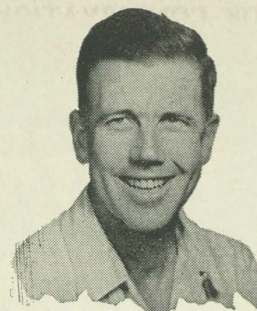
mans' Club" and a copy can be yours for the asking. In any community that has active civic clubs we urge that "conservation committees" be appointed to work directly with our staff.

Organized sportsman's clubs are the backbone of our country's outdoor future and close association plus understanding cooperation with all interested groups will definitely mean a swifter progress towards our ultimate goals.

It is my intention that the Game and Fresh Water Fish Commission will work directly with such groups in the future. By doing this, the vast amount of problems encountered in

such a large program as ours can be aired for the benefit of everyone concerned. This close cooperation between the people and Game Commission personnel should certainly help to expedite local productive programs and in general pave the way for a most harmonious hunting and fishing future.

Our program is large. The problems to be encountered before the ultimate are realized are many. But, with the continued expansion of coordination efforts throughout the state I feel certain that our programs will be accepted and recognized as being effective, progressive, and productive in every respect. END.



By **CHUCK SCHILLING**

TROUT AGAIN:

Comes a letter in this month's mail from Dewey Shelton of Tampa, Florida, taking exception to my remarks about rainbow trout in an old issue of **FLORIDA WILDLIFE**. Shelton recalls taking big rainbows from back country mountain streams in North Carolina as a boy. He says they were full of fight, as wary as scared rabbits, and not to be confused with the liver fed, hatchery trout I was writing about.

Of course, Shelton is right. There is not much similarity between a native rainbow and a hatchery innocent; but by the same token, there is not much similarity between a Florida largemouth black bass taken on heavy tackle and live bait from a spawning bed and another taken on light, sporting tackle and artificial lures. Still, the rumor persists that Florida bass are "pot bellied and sluggish."

And so it goes. We know that all rainbow trout are not hatchery raised and liver fed, just as we know that all Florida bass are not heavy with roe.

The last trout stream I fished had a local hot shot, who owed his fishing success to a relative who worked at the trout hatchery. Inside information concerning the stocking schedule put this sport on the pools just as the hatchery truck drove away. He got his limit **ALMOST** every time. Worms, of course.

DETAILED INFORMATION:

Another letter comes from F. L. Siegel of Falco, Alabama. Siegel complains that our reports on fish and fishing are not specific enough. He says he would like to know the name of the bait, the rod, and the other equipment we talk about.

Siegel has a point, but, of course, we do have a very fine "Tests and Tells" Department in the magazine that pinpoints this sort of information; but to go along, here are two new items that are exceptional enough to merit particular mention. **SOUTH BEND "700" REEL:**

The South Bend Bait Co. has a

new spinning reel that can be used on a casting rod and "thumbed" just like the old style, revolving spool casting reel. The difference is that even with 6 lb. mono, with which the new reel comes equipped, there is no possibility of backlashing. I have been using this reel with a light action, 5½ ft. casting rod and am frankly amazed with the ease of operation this reel affords. Even winding the handle backwards produces no ill effects.

In a very short time, I picked up the "feel" of this new little reel, and I can now lay them in the pockets with this outfit just as accurately as I ever could with my regular casting combination. To complete the story, the spool holds 150 yds. of 6 lb. mono, the reel has a smooth, adjustable drag, but — most important of all — is a feature that allows the cast to be controlled by thumbing the line. This is accomplished by a hole in the reel cover that allows the end of your thumb to lightly ride the line as it "peels" off the stationary spool; thus, perfect control of the cast is made possible. This one is for me.

COSMETAN POLAROIDS:

I am just as enthusiastic about

the new sunglasses as I am about the new "700" Reel. I first heard about these glasses from Roy Martin of Panama City Beach, who showed me a pair six months or so ago. I couldn't rest until I had acquired a pair for myself. I have no exact data on these, but from my own experience, I would say there is as much difference between "Cosmetan Polaroids" and regular polaroids as there is between regular polaroids and plain colored glasses. Apparently, **ALL** the glare is eliminated by the Cosmetans. This is one of those items that must be experienced to be appreciated. The difference is truly amazing. Take my word for it — you have never had really glare proof eye comfort until you try Cosmetan Polaroids.

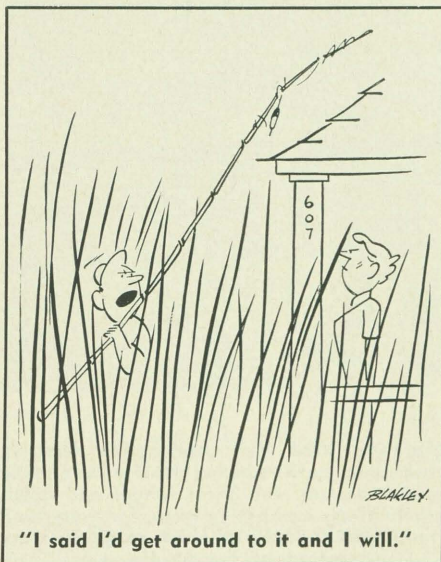
One of the advantages of Cosmetans is that it is a real optical glass that you can have your prescription ground in if you so desire. Cosmetan Polaroids are made by the American Optical Co. in a variety of styles and sizes for both men and women. I might as well warn you that, like all fine professional eyeglasses, the price is a lot higher than regular Polaroids. In my opinion, they would be worth twice the present tag. At this time, these glasses can be purchased only from an optician or other ophthalmic professional. They are expensive, a little trouble to find and purchase, but **WORTH IT.**

RECORDED FISHING:

A friend of mine lives on a medium size lake which he fishes regularly. A few years ago, he drew a map of this lake, with shore line irregularities, brush piles, docks and snags all clearly marked. He, also, sounded the lake bottom and marked on his map the location of sand bars, deep holes and drop offs.

Once he had his map completed, he began putting a small cross on it for every fish he caught. Now, after several years of recorded fishing, the crosses on his map tell a very interesting and informative

(Continued on Page 34)



muzzle flashes

By EDMUND McLAURIN

Ever since Dan Lefever, a New York state gunsmith of the Civil War period, designed and built the first double, breech-loading, hammerless shotgun made in America, field pieces with side-by-side barrels have been dear to the hearts of shotgunners of each succeeding generation. In Florida, as in other sections of the country, countless thousands of upland game and waterfowl shooters consider the double barrel style shotgun tops.

But whatever the basis for their claims to superiority over the other types of smoothbores, owners of fine doubles will have to concede two points of superiority to the one style single shots, the pump action repeaters and the autoloaders. . . . A shotgun having a barrel in a single, narrow plane is much easier to align than a double-barrel style, where the tubes lie side by side and the sighting plane is broad. Secondly, unlike a double, a single barrel shotgun can be fitted with a selective choke device, or compensator, to convert it into an all-purpose, all-range gun, equally as good on quail at 18 yards as on larger waterfowl at fifty. Few doubles have such inherent barrel alignment ease or versatility in application.

To make a single barrel shotgun do multiple duty in the field, one need only select one of the current crop of selective choke-recoil compensator devices and have it factory installed well in advance of hunting season.

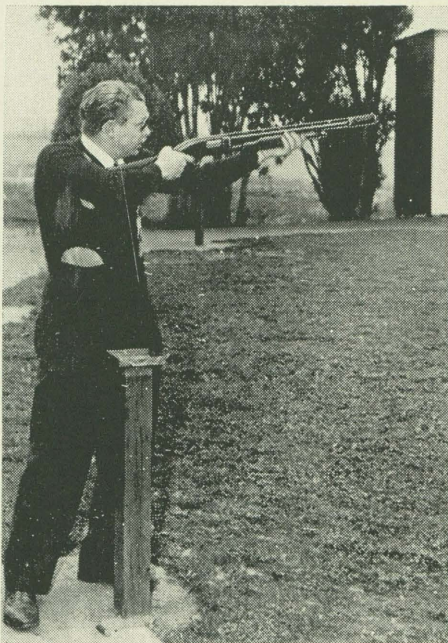
Like their readers, gun editors are notoriously individualistic in their opinions, and it is only natural that personal experience will frequently influence or color expressed viewpoints.

In regard to selective choke devices, the editor of MUZZLE FLASHES was fortunate enough to be in attendance at Vandalia the year Major Charles Askins, America's Dean of Shotgunology, demonstrated three leading makes for

coaches of the American Skeet Association and chose this gun editor to collaborate in actual performance tests. Prior to that occasion, we had used available choke controlling tubes, but never all leading makes on a single occasion and under identical trial conditions. We have since field tested just about every product made. Let's now take a look at some of the reliable shotgun compensators marketed under trade names known wherever men shoot for sport.

The Lyman-Cutts Compensator

The original Lyman-Cutts compensator, invented by Colonel Cutts for Army use and developed by the Lyman brothers, has been on the market for more than two decades. Many national trapshooting records were established with guns fitted with a Lyman-Cutts compensator.



Shotguns fitted with combination selective choke and recoil reducing devices have made records on trap and Skeet ranges and found practical use on hunting guns, for everything from upland game at short range to wary waterfowl at longer distances.

Made for installation on 12, 16, 20, 28 and .410 gauge shotguns, it comes with six detachable, selective choke tubes of varying lengths, and a recoil-reducing body unit that is permanently attached to the shotgun muzzle, a wrench being used to change the pattern tubes supplied. Pattern tubes available include the No. 705 or Full Choke for duck and crow shooting; the No. 725 or Modified Choke for general bird shooting at 30 to 40 yards and for trap shooting, where the targets are released 16 yards from the shooter; the No. 755 or General Purpose tube for game shooting around 30 yards; the Nos. 680 and 690 tubes for 40 to 65 yard shooting with heavy loads and large shot, and the Spreader Tube, used for close-range brush shooting and for Skeet. For Florida quail, the Spreader Tube is deadly.

Like certain of its rivals, the Lyman-Cutts compensator reduces recoil as well as providing pattern control. Tests conducted by the Hercules Powder Company showed that the Cutts device reduces recoil by about 33% when ordinary game loads are used, and approximately 43% with high velocity shell loadings.

Because the Lyman-Cutts compensator, with a pattern tube attached, is long, shotgun barrels are usually cut back considerably when making installation — often to 22 inches. A 22-inch barrel with the integral unit and Spreader tube attached will give an overall length of 26 inches, and 28 with the Full Choke tube. The most frequently voiced objection to the original Lyman-Cutts is the fact that a wrench must be carried along to make the tube changes. Just recently, the Lyman firm has come out with a twist-style compensator, to offset the inconvenience of changing tubes for different degrees of choke, but the uniformity of obtained shot patterns is not as consistent as from the individual, machine-bored tubes.

The Super Ventilated Poly Choke

With the Super Ventilated Poly Choke, the shotgun shooter has a choice of nine degrees of choke, from reverse to full, with a recoil reduction only a little less than that of the Lyman-Cutts. Of the nine chokes, in all likelihood the average shooter will use only four — Open Cylinder for close shooting of 25 yards and under; Improved Cylinder for game taken between 20 and 30 yards; Modified Choke for 30 to 35 yard shooting, and Full Choke for 40 yards and beyond. If you keep it free from rust, and follow the in-

structions furnished, you can shoot anything from very small shot to buckshot and rifled slugs through the Ventilated model Poly-Choke with equal facility. A slight twist of fingers and hand will instantly change the patterning effect, the control sleeve working on the principle of a drill press chuck.

The Poly Choke can be had with the Bob Nichols' Bev-L-Blok sight, for autoloaders, pumps and single shots, or with the Bradley-type bead sight, the last best suited to repeaters only.

The Weaver Choke

While some shooters consider the Weaver Choke much similar to the original Lyman-Cutts, an examination of the Weaver will show that its physical properties are different from its rival. Specifically, the recoil-reducing baffles within the main body are different from those in the Lyman-Cutts; the tubes have a different and more pleasing shape and can be screwed to the main assembly with either the rod wrench furnished or a stout nail inserted in the hole provided in each of the six tubes. The Weaver presents a neat appearance on the shotgun and there is nothing to get out of order. It comes in all standard gauges. Tests by this department indicate very consistent patterning and a versatility that permits 20 yard Skeet targets or duck shooting up to 70 yards.

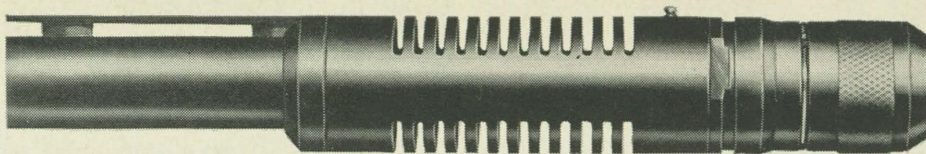
The Power-Pac

Developed in recent years and considered a newcomer to the shotgun compensator market, but a unit that has performed well for shooters and received the nod of approval of the gun editors and technicians, is the Power-Pac.

Like the Lyman-Cutts and the Weaver, the Power-Pac utilizes separate control tubes screwed into a main body, but the tubes, threaded for attachment at the front end of the compensator, are unlike the others in that they extend back into the main body instead of protruding from it.

The Power-Pac comes with tubes for the three most useful of shotgun chokes, and gives fine patterns at all ranges. Many of the basic operating features previously mentioned for the Lyman-Cutts, the Poly Choke and the Weaver are incorporated in the Power-Pac, and the reader is advised to examine and compare all named before making a purchase.

There are others, of course, but those named are the leading brands and the ones used by MUZZLE



The new model Lyman-Cutts compensator, like the Ventilated Poly Choke, features finger-twist selection of desired degree of choke while the slotted main body utilizes the recoil-reducing principle of the original Lyman-Cutts. The original model, which requires wrench-installation of individually bored choke tubes, gives more consistent shot patterns than the finger-twist style. This finding applies equally to other makes operating on the same choke selection principle — the machine-bored, permanent-dimension tubes never vary in exerted choke as can happen with finger-twist changes.

FLASHES in patterning tests that consumed three full cases of shotgun shells.

In General

Usually, when a quality-made compensator is properly installed on a shotgun, there is a resulting gain of beautifully uniform shot patterns. However, the type of shotgun load the shooter uses has a great bearing on pattern quality, and different shell loadings, fired through the same choke boring, will vary in performance. Users of the compensator devices should keep that in mind.

Contrary to popular belief, cutting a shotgun barrel short and installing a selective choke device (of any make) results in very little, if any, loss in practical killing velocity. Modern smokeless powder burns quickly, even in short barrels. On the other hand, and within certain limits, the length of a shotgun barrel can be slightly increased, if desired, by adding a compensator to a factory barrel that has cut back less than the overall length of the unit being installed.

Because choke attachments are larger than the shotgun muzzle, they are quickly picked up and aligned by the aiming eye. Many users of the devices coat the eye-catching surfaces with bright yellow or red enamel to more quickly attract the shooting eye. Some shotguns try to improve on the idea by adding a high, brightly-colored front sight, and often end up with a combination that results in undershooting of most targets. Factory recommendations for matching front sights should be followed. For example, the Bev-L-Blok is fine with a Poly-Choke on a Browning autoloader, but too high for guns like the Winchester model 12 or the Remington 870 pumps. For these, the Bradley bead is preferable.

Even with compensators giving a choice of several degrees of choke,

most shooters will use too much choke, thereby reducing the effective diameter of their shot pattern and at the same time making it necessary to be more exact in regard to gun pointing. MUZZLE FLASHES concurs with Boyd Williams, of the Williams Gun Sight Company, in his contention that the shotgunner should shoot his game as soon as he can get his gun aligned on it, and that it is better to hit a bird with three or four pellets at 20 to 30 yards than six or eight shot at 40 and fifty yards, because at 20 yards the shot have far more striking energy. With the more open choke borings, provided that pattern tests prove that there are no escape holes in the shot patterns, the shotgunner does not have to center his charge as precisely as when firing a heavily choked gun.

No matter what kind of choke device one puts on the end of a barrel, or to whatever exact specifications a barrel may be bored and finished, it is unlikely that the final product will throw all sizes of shot equally well. Also, what may prove to be a perfect shot pattern with a given shell loading at, say, 30 yards may be disappointing as a killer at forty. When shot performance begins to vary, it can be decidedly erratic in forward travel of only a few yards. Paper pattern your gun with the loads you plan to use over the average ranges you expect to shoot.

Installation of a combination selective choke device and recoil-reducing compensator will make your single barrel shotgun a more versatile, enjoyable hunting weapon, but its practical use will depend on how well you make its acquaintance, by pattern tests over various ranges with different shell loadings and degrees of choke. The selective choke-compensators are good, but, like cars, TV sets and people, have behavior characteristics that must be learned and understood. END.

FISHING

(Continued from Page 31)

story. There are 23 hot spots on his fishing map, where he has caught almost all his fish. Of these, 8 are super hot spots and have produced more fish than the other 15 put together. Even more surprising, 3 of the super hot spots have produced better than half of the big bass that have been caught.

GET A MAP:

Everyone is not able or inclined to produce for themselves such a fishing map. The moral of this story merely points out once again that every body of water has certain areas that regularly produce fish, while other portions of the same water are almost always barren. On familiar water, you probably know your fishing hot spots like your own back yard, but how about when you go visiting to strange or seldom fished waters?

Here's a suggestion — most waters in the state have been surveyed and mapped. These maps are sometimes available at local fish camps or tackle stores. Sometimes they can be obtained at local Chamber of Commerce offices. Maps of navigable waters, such as the St. Johns River chain, can be had from the Dept. of the Interior, Washington, D. C., or the office of U. S. Engineers, Jacksonville, Fla. There is hardly a lake or river of Florida that has not been mapped by someone, and many of these maps are available at little or no cost.

With a map of strange waters in your hands, it is easy to get local experts to mark the fishing hot spots (did I hear someone say, "Oh, yeah?"). A good procedure is to ask for this information from as

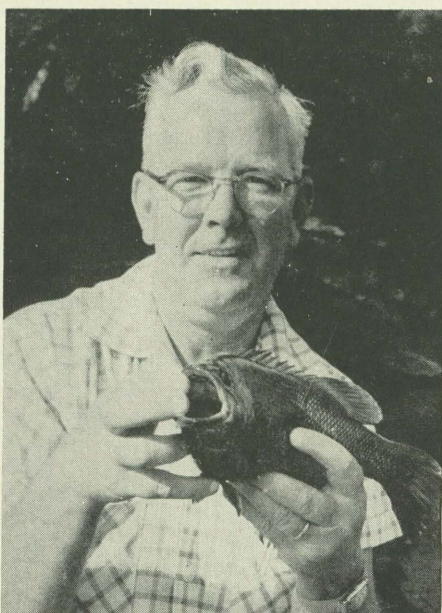
many of the local hot shots as possible. You can then fish the spots all of your informants agree upon, leaving the individual choices for secondary attention. This map marking routine will save you hours of fruitless searching and will avoid the vague, hard to follow verbal directions that are the usual thing.

A BASS WITH A

SMALL MOUTH:

I went fishing a few weeks ago with Bill Ware of Branford, Florida, and "Bud" Mowry of Tampa. The scene of our efforts was the Suwannee River near Branford. Bill Ware beats the drums for this Suwannee River fishing full time and, in his spare time, rolls the pills at Ware's Pharmacy in town.

It was late in the afternoon when



"Bud" Mowry holds a 2-pound Suwannee River Bass showing the small mouth of this largemouth with the small mouth.

we pushed off. We were after the elusive Suwannee River bass, a subspecies of the largemouth black bass family (so they say). I had never caught one of these highly touted, high jumping game fish. Ware and Mowry, being old hands at this game, were taking me for the ride.

I was using spinning tackle and small top water poppers, casting to the pockets along the brush filled bank. I soon accounted for two of these small mouthed Suwannee River bass. Please notice the picture of the two pound fish and his very small mouth.

I was delighted. These bass don't get very big. A three pounder is a monster. However, they are unmistakably bass. The fish I caught were very dark in color, with short, chunky bodies, very heavy in the shoulders. I was fascinated by that tiny mouth. I can understand now how all the misunderstanding started about the nonexistent Florida small-mouth bass.

Of course, the Suwannee River bass has a small mouth, but it's not really a smallmouth, because it's a largemouth with a small mouth.

I don't mean that the small mouth of this fish is large, but, rather, it is a largemouth that is small — reading that last, I feel there is some chance of misunderstanding. I think I can settle this question once and for all. It's like this.

The Suwannee River bass is not a smallmouth bass just because it has a small mouth. It's really a largemouth with a small mouth. It's very simple. A smallmouth with a large mouth would still be a smallmouth, and a largemouth with a small mouth is a Suwannee River bass except when it's a largemouth.

See?

END.

THE J.C.L. CAMP

(Continued from Page 6)

ing to the construction fund would be inscribed on plaques installed on the mess hall and 10 cabins.

Those who have donated funds to date include:

One cabin, \$850.00, Anglers Club of Broward County; One cabin, \$850.00, Dade County Sportsman's Club.

Mess hall roof, \$2,215.10, Gordon Granger, Lake City and B. Brack Cantrell, Okeechobee.

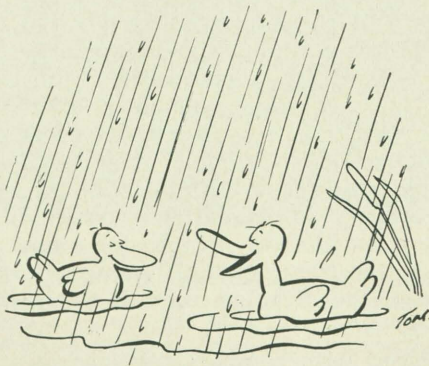
"Ben C. Morgan Memorial Cabin," \$109.00, employees of the Game and Fresh Water Fish Commission.

General construction, \$4,500.00, Florida Game and Fresh Water Fish

Commission.

Other donations include:

Florida Outdoor Writers Association, \$200.00; St. Petersburg Rod



"Nice day isn't it?"

and Gun Club, \$110.45; Marion County Mullet and Gar Spearfishing Club, Ocala, \$71.50; Rose Printing Co., Tallahassee, \$100.00; Midyette-Moor Insurance Agency, Tallahassee, \$100.00; Lealman Rod and Gun Club, St. Petersburg, \$25.00; Pasco County Fish and Game Club, \$25.00; Airboat Association of Florida, Miami, \$25.00; Halifax Rod and Gun Club, \$25.00; Volusia County Sportman's Club, \$25.00; Suwannee River Sportsman's Club, \$25.00; Richard A. Hoeft, Miami, \$20.00; Allapattah Optimist Club, \$19.00; William Fischer, St. Petersburg, \$5.00; Virginia Durkee, Williston, \$5.00; Mrs. William Meinelt, DeBary, \$3.00; W. B. Sparkman, Sr., \$10.00.

END

OUTDOOR REVIEWER

By JACK SHOEMAKER

THIS IS THE BEAGLE, By George D. Whitney, DVM, Published by Practical Science Pub. Co. and distributed by Garden City Books, 575 Madison Ave., New York 22, N. Y. Price \$3.95.

The practical science breed series is a new line of books, each one covering one of America's favorite breeds of dog. The books are and will, according to the publisher, continue to be the most authoritative and comprehensive on the market.

In my various contacts with outdoorsmen throughout the state, I've had occasion to look over quite a number of dogs, and for a dog with a sound disposition, a gay personality, a friendly yet not too vigorous dog, and a dog that'll take to training, along with the little hound's beauty, I believe I'd take a beagle.

This book tells you how to select the best puppy of this particular clan, starting him on training, working him out on the fields, using him for a show dog and a number of other items, such as common ailments, heredity, breeding and field and hare trials. There are a number of photographs and sketches portraying exactly what the author is trying to get over to the reader. The author is a dogman of some 30 years experience, so we'd judge that he knows his stuff.

* * *

BLUEFISHING, By Henry Lyman, Published by A. S. Barnes & Company, 232 Madison Ave., New York 16, N. Y. Price \$1.75.

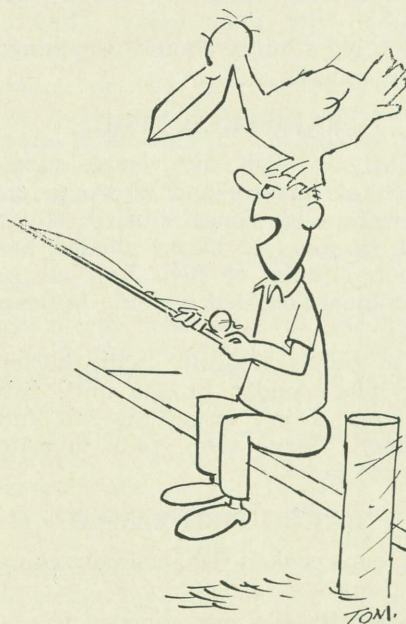
On my recent trip south to Jensen Beach a friend and I decided to take in surf fishing for blues. We'd heard quite a bit about it so we were determined to give it a try. We had just a plain old spinning outfit, sinkers, and spanish mackerel for bait. We used mackerel because the oily flesh helped lure the fish our way.

We fished and fished and nothing happened, then all at once my part-

ner hooked, played and landed a 3 to 4 lb. blue, then almost as soon as his bait hit the bottom again he got a strike and another 3-pounder came in. Finally, I got a strike, set the hook and started to reel in when suddenly my line snapped. I was using 6-lb. spinning monofilament. While I was very disgustedly fixing my line, my partner came in with the third bluefish. Finally, I got the line out and again I got a strike and again I set the hook and again the line snapped and the fish took off.

But now after reading Hal Lyman's book on "Bluefishing," I'm determined to give it another try and this time I'm not going to come home without blues. My secret: Well, I'll just get a heavier line.

Seriously, though, this book, which is another of the Barnes Sports Library, is so simple that there are only six chapters in it. They are Introduction, The Fish, The Waters—and here in Florida



"Scram!"

you'll find the blues in both the Atlantic and the Gulf—The Tackle, The Methods and the Leftovers. Lyman, publisher of the Salt Water Sportsman, lived with the blues a number of years before he wrote this book.

* * *

THIS IS THE GERMAN SHEPHERD, By Capt. William Goldbecker and Ernest H. Hart. Published by Practical Science Pub. Co., and Distributed by Garden City Books, 575 Madison Ave., New York 22, N. Y. Price \$3.95.

This is the second in a series of books about America's dogs and this one, lavishly illustrated with over a hundred photographs and more than 30 line drawings gives a complete and accurate picture of the German Shepherd.

You sort of wonder where in the world the authors can get enough information to fill more than 200 pages of this work with facts and statistics regarding just one dog. But you begin to understand once you start reading, for if you want to know anything about the shepherd you'll find it in this book. What I enjoyed more than anything else was reading the history of this particular breed.

Feeding techniques, diseases and first aid—a 25-page chapter for your information—and the discussion on the controversial question of imports versus American breeds help sell this book.

* * *

ATTRACTING BIRDS TO YOUR BACKYARD, By Dr. William J. Beecher, published by the All-Pets Books, Inc., P. O. Box 151, Fond du Lac, Wisconsin. Price \$1.00.

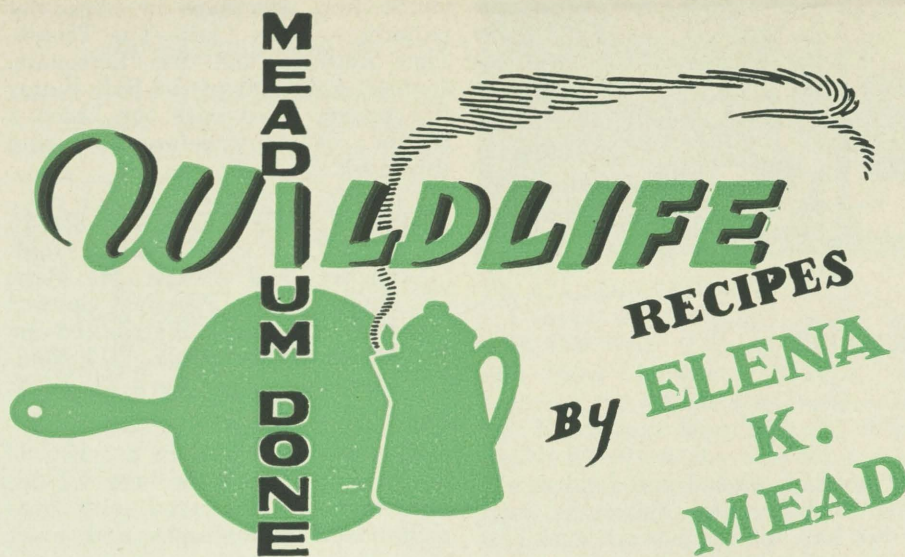
Bird lovers interested in knowing a little more about our fine feathered friends particularly in the manner of properly equipping the home to attract such birds will enjoy looking over this book.

Former president of the Chicago Ornithological Society, Dr. Beecher has a very enjoyable style of writing, making this an easily understood book. Whether you live in the city, suburb or country, you'll find this book and the hobby it'll take you into very interesting. Most homeowners like to have various wild birds visit their yards, and we almost guarantee that if you follow Dr. Beecher's suggestions you'll have cedar waxwings, bluebirds, cardinals and many other species whistling just outside your window every day.

END

MEAD WILDLIFE CUM DONE

RECIPES
By ELENA
K. MEAD



As a follow-up to last month's column, we have come up this time with one we've dubbed:

FISH TRICKS

Assuming that even the rankest beginner knows how to fry fish—i.e. use an iron skillet and plenty of fresh fat (a wire rack to dip into hot grease is even better)—we'd like to qualify a statement we made previously in regard to keeping fish.

We said "Don't ever freeze fish, etc." We'd like to alter that to read, "Don't freeze fish—unless it is already cooked." In other words, if you don't eat all you cook, don't feed the surplus to the cat. Freeze it for future consumption. Let cool completely, then wrap each piece separately (if they are sizeable) in waxed paper or foil, freeze quickly, and keep in the storage compartment of your refrigerator for another day of enjoyable eating.

When ready to serve, don't defrost, but place in single layers in a shallow pan. Place in a hot oven for 25 to 30 minutes, depending on thickness of pieces. If you like it crisp, remove paper or foil covering, but if you like it soft, heat in wrapper.

Remember—if it is a hot day and you do not have ample refrigeration to safely carry your fish home, you'll play safe to cook it at your campsite. Freeze it as soon as you get home. It's a little more nuisance, but a lot better than battling a case of ptomaine.

STEAMED FISH

This is an old stand-by at our

house, but much to our surprise it proved to be new to some recent visitors, so we are passing it along.

After fish is fileted (or boned, more properly speaking!) dredge in flour or cornmeal and fry quickly in hot fat until a golden brown. Season to taste with salt and pepper.

Now pour off most of the fat, and reduce heat under your skillet. Add two tablespoonsful cold water and put lid tightly on skillet. Cook slowly for 15-20 minutes. Repeat process twice, turning fish with pancake turner. Serve hot. The secret is—plenty of seasoning, a slow fire, and a skillet with a tightfitting lid.

"Steaming" fish takes a little longer—but it's worth it. That's the trouble with folks today. They're in too big a hurry about everything. Even cooking.

SKEWERED FISH

Cut raw fish into large cubes (inch or larger) and alternate on skewers with large stuffed olives and ½ slices of bacon pleated between chunks of fish. Roll all in corn meal and cook quickly in deep fat.

Or smear liberally with butter and place under broiler until fish is done. Don't forget the salt and pepper. Serve with your favorite tomato sauce.

BAKED FISH SALAD

2 cups cooked fish, coarsely chopped

1 hard-boiled egg chopped

½ cup celery, chopped fine

½ cup sweet pickles, coarsely cut
Salt and pepper to taste.

Combine all ingredients lightly with your favorite salad dressing or mayonnaise. Scoop centers from ripe tomatoes. Fill with salad mixture. Place in individual gem pans with a little water in each, and bake in moderate oven until tomato shells are done. Serve hot with baked beans and chips.

"CUSH"

Inasmuch as Florida Wildlife magazine has dedicated itself to the business of conservation, we'd like to "conserve" an old Cracker recipe which has just come into our hands. It's for a sort of "spoonbread" made from left-over corn pone, called "Cush." Here 'tis:

Into a small amount of boiling water which has been slightly salted, crumb cold corn pone, breaking into small pieces, and stir constantly. Cook it until it boils down into a thick mass. Some folks thicken it with a bit of flour mixed in cold water at the last.

Serve with fried fish or meat, like a spoon-bread—or with milk as a cereal. Good covered with sorghum molasses, they say, if you have a sweet tooth.

END

GAME BIRDS FOR WHITTLERS

(Continued from Page 21)

pencil on the whittled bird the areas where different colors are to be applied. For this purpose, and as a guide for the actual coloring, the picture from which you took your pattern may be suitable. A mounted specimen makes an excellent guide, or color plates in magazines or library books can be used. Hank begins his painting with the head and proceeds to the neck, body, tail and wings. The eye is painted in last, after paint on the head has thoroughly dried. You need not attempt to paint in feather detail but, on white parts, a suggestion of feather outline can be attained with very light gray, broken lines, put on with a fine brush. This is done after the white paint is dry.

Whittling out game birds is a year-round hobby which you can enjoy afield as well as at home. Of course the painting is easier done at home, but Hank usually has a bird blank or two in his car, or one in his hunting or fishing coat, to whittle on in spare time. If you like to whittle, this is one way to make a lot of worthwhile shavings!

END

MILLION DOLLAR LEGS

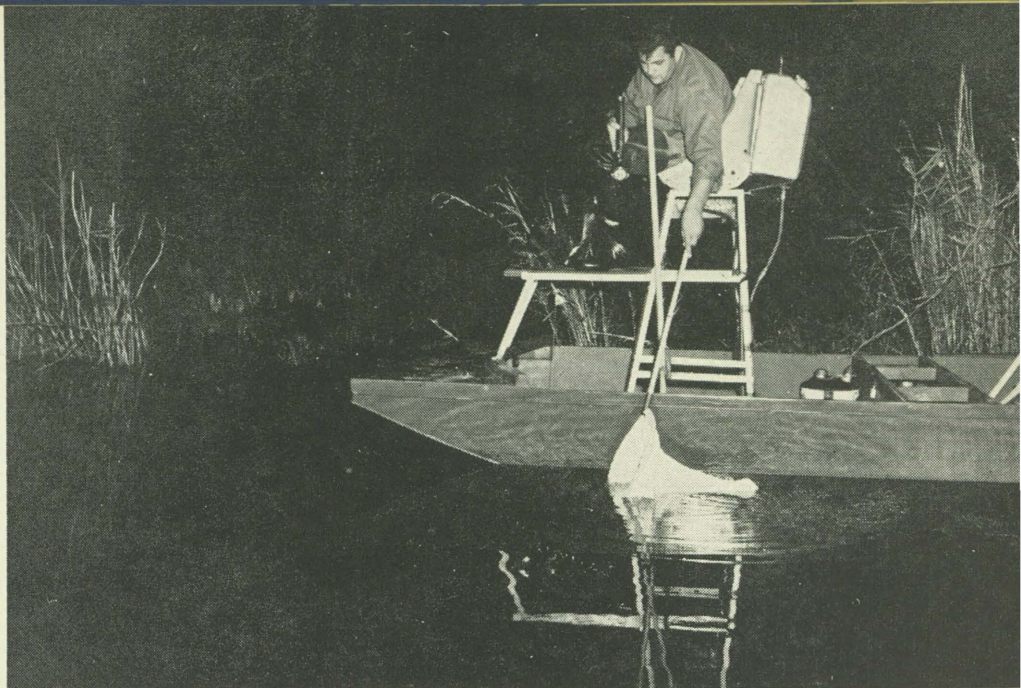
(Continued from Page 15)

resources, we must first have as nearly complete understanding of all phases of the life cycle and of the factors, detrimental or otherwise, which have an effect on the population. For this reason, a considerable portion of the study has been and will continue to be devoted to studying the biology of those species which are of importance to the froggers, both commercial and otherwise.

There are five species of Ranid frogs which offer a potential source of food and/or income in Florida. These are *Rana pipiens*, *R. heckscheri*, *R. grylio*, *R. clamitans*, and *R. catesbeiana*. Of these five species, only *R. grylio*, the southern bullfrog and *R. pipiens*, the meadow frog or leopard frog occur in the area of Florida south of Lake Okeechobee. It is these two frogs that are of most concern during the present study. Most of the emphasis is placed on the bullfrog as it is the species which is most important to the end results of the survey.

Determination of the habitat type preferences of the frogs is an important aspect of the study since vegetative characteristics of any given part of a section of marsh may vary greatly from others. Bullfrogs show a marked preference for certain types of habitat thus, if the optimum habitat can be determined, manipulation of water levels, if feasible and compatible with other land uses, may greatly improve the productive potential of the marsh.

Project personnel gather sight census data by making frequent night traverses of predetermined



Biologist L. Neil Bell dips tadpoles from the marsh as part of the study of bullfrog growth and development.

census routes and information is recorded by habitat types. Initial efforts indicate that frogs tend to avoid dense growth but favor areas of open vegetation and moderate cover.

In addition to habitat, the availability of food is an important factor in determining the productivity and suitability of a given section of marsh for frogs. Detailed studies are being made regarding the food habits. A collection of frog stomachs is being made at all seasons of the year in order to obtain an insight into the relative importance of individual items of food and the seasonal variations in food habits. The study has thus far shown that a crayfish, *Procambarus alleni*, is one

of the most commonly taken food items. In addition to crayfish, frogs eat a variety of other animal life including small fishes (Mollies, mosquito fish), leeches, leopard frogs, bull frogs, cricket frogs, snails, fresh water shrimp, aquatic beetles, beetle larvae, caterpillars, grasshoppers, and small water snakes.

Progress is being made in the frog study. Continued investigation of this heretofore neglected resource offers hope that the downward trend in frog production will be halted and that frogging as a business and as a sport will long continue. Although the bullfrog may be no beauty, there is no denying the fact that the critter does sport a pair of million dollar legs. **END**

POLLUTION

(Continued from Page 19)

selves. Once it has told them where they have sinned, it is in no way obliged to provide or to suggest a remedy. Yet ACA doesn't see it that way. If its experts hit on a cure which other researchers have missed, ACA makes it instantly available. Take the example of its study of the toxic effects of synthetic detergents on aquatic life. One of its scientists, Dr. J. H. Hamence, solved the problem of how to remove these sustances from effluents. At the same time he discovered that the process also removes the objectionable brown color while it improves the effluent organically. Did ACA keep this discovery under its hat? No, siree. It immediately brought it to the attention of a con-

ference of the representatives of civic bodies and detergent manufacturers. While this type of generosity and consideration is part of ACA's makeup, it isn't surprising that the resistance of polluters generally is now rapidly on the down-grade.

That it vanish completely from British waters is the hope and aim of ACA. All its energies are focused on that target. The entire policy of ACA is in the hands of a council of sixty members, every one of them fishermen. They are elected by ACA members and may hold office for a period not exceeding five years. None of them gets a cent for his services. His only reward is the knowledge that he's helping his fellow fishermen. The council meets perhaps three times a year, but they have a committee which convenes

once a month to see that ACA policy is carried out.

Nor is ACA a profit-making concern. It is rather a philanthropic body catering to fishermen and their sport. In the course of its work it must make a careful study of every case of pollution, whether or not it ever goes to court to obtain redress. Rightly, it argues that if the case is to be completely watertight, it must be able to call in the very best legal and scientific help. To do that costs money, lots of money. Money, money, money! That's ACA's constant headache. It has no grant from the government. Its entire income stems from donations and subscriptions from its members and friends.

Any person can become a member of ACA on payment of a fee that is scaled to suit every pocket.

(Continued on Next Page)

You can become a Life Member for a single payment of \$28.00, an Ordinary Member for \$2.80 a year, an Associate Member for 40 cents a year, or a Junior Member for 75 cents a year. If you feel those fees are beyond your reach, you can join ACA through your fishing club which is given a block membership for an annual subscription of \$3.00 to \$6.00, with a ceiling fixed at \$30.00. The minimum annual sub-

ENTERTAINING INFORMATIVE INTERESTING HELPFUL



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CITY STATE

scription for hotels and catering establishments is \$3.00; for fishing tackle stores, \$6.00. For a further 50 cents, every member gets the ACA button-hole badge.

In fixing these charges, ACA hoped to attract thousands of members to its fold, and this is the only failure it has to record. The fault, of course, doesn't lie with ACA. It lies with the very people whose interests it serves: the millions of fishermen in Britain, the many fishing tackle dealers and manufacturers who rely on fishing for their livelihood, the countless hotels and guest houses in which fishermen put up, the owners of fisheries who sell permits to clubs and individual fishermen, the millions of farmers who need clean water for domestic and livestock needs, the swimmers who know the joys of unpolluted water, the thousands of families that picnic by the water's edge, and the hordes of naturalists who frequent the riverside. It is for these millions of British people with a common interest in pure water that ACA

fight pollution. Yet the support it has had is most disheartening.

Out of the 50 million people who live in Britain, only 969 joined ACA in its opening year, 1948. By 1953, the figure had climbed to 4,864. If this were expressed in terms of oil, it would scarcely yield enough to grease the hinges of a pair of reading glasses. Yet, ACA continues to think of oil wells. What if it is now only raking in shillings and pence! Sooner or later it feels it must hit the jackpot. In the meantime, it is grateful for what little support it gets, believing that half a loaf is better than no bread at all.

Fishermen everywhere will surely wish that the ACA membership will soon soar into the hundred thousands. But it needs more than wishes if its "fighting fund" is to be strong enough to enable it to reach its goal. The country that gave birth to Izaak Walton, the Father of Fishing, is certainly not going to stand aside while the sport that he immortalized is slowly strangled by pollution. **END**

THE ARMADILLO

(Continued from Page 10)

and southern Alabama. So far as we know, the two populations have not met, but no doubt they will do so very soon. Then there will be a continuous breeding population of armadillos, all the way from South Florida around the Gulf into Mexico.

In Florida the armadillo frequents the stands of turkey-oak and long-leaf pine; "scrub," both coastal and inland; abandoned fields, especially those overgrown with broom-sedge and dog-fennel; and the drier parts of pine flatwoods. It is somewhat less common in hammocks. In addition, it often invades orange groves, tung orchards, gardens, and cultivated fields. Occasional armadillos venture into swampy places, such as the borders of ponds and lakes, but in general these animals prefer dry, brushy places.

There has been controversy as to whether the armadillo will prove a desirable immigrant. It feeds upon insects, and some people regard this as a point in its favor. However, it also devours small lizards and lizard eggs; these reptiles would have helped to keep the insect population down. In the western United States and Mexico, many people eat armadillos and also prepare novelties from the shells; but Florida folks seem to make no use of the beast. Grove owners, nurserymen, and gardeners report heavy damage

from armadillos, which burrow in the ground and root like hogs. Hunters claim that the animal is destructive to quail eggs, and some authorities fear that it may spread tularemia or "rabbit fever" and other tick-borne diseases. Rattlesnakes are known to find shelter in armadillo burrows. In some parts of the state, local agencies have placed a bounty on the unwelcome animal.

The armadillo is easily recognized by its hog-like snout and armor-plated body. The horny shell is not rigid as in a turtle, but includes nine overlapping bands which allow flexibility and even permit the animal to roll up into a ball. Thus the name "Texas nine-banded armadillo" is often used for this strange beast. Although somewhat reptilian in appearance, it is a true mammal. Curiously, it gives birth to four young, and these will all be of the same sex.

The armadillo thrives in waste places, scrubby areas, second-growth timber, abandoned fields, and burned or cut-over woods — habitats mostly provided by man. Wholesale drainage and deforestation in the East have rendered many areas suitable for the creature. Furthermore, man has nearly exterminated most of the larger carnivorous animals — the predators which originally helped to keep the armadillo in check. Thus the spread of the armadillo has resulted largely from man's activities. **END.**

FLORIDA WILDLIFE

FEDERATION NOTES

A Fourth District Director's meeting was recently held at Miami Beach. Represented were the Officers of the Federation and many Directors from the other Districts. Clubs of the Fourth District who had representatives and Directors at the meet were: Rod and Reel Club of Miami Beach, Airboat Association of Florida, Miami Beach Angler's Club, Inc., Eastern Air Lines Rod and Gun Club, Wildlife League of Palm Beach County, Pan American Airways International Rod and Gun Club, Sportsmen's Club of Dade County, Air Boat Conservation Club of Palm Beach County, Broward County Air Boat Association, Sportsmen's Club of Dade County-Women's and Junior's Division, and Dade County Conservation Council.

Plans were discussed for the Annual Florida Wildlife Federation Meeting to be held in Daytona Beach, October 1-2. On the agenda will be such outstanding persons as Michael Hudoba, Sports Afield Conservation Editor; Carl Shoemaker, noted Conservationist; Ernest Swift, Assistant Director of the U.S. Fish and Wildlife Service, James McBroom, Director of River Basin Studies; P. R. Gutermouth and Ira Gabrielson of the Wildlife Institute, and others.

The Daytona Beach meeting will also include the Annual election of Officers for the coming year.

Officials of the Federation, while in Miami, also attended a special meeting of the Southeastern Fish-

eries Association along with a committee of Florida Outdoor Writers.

The St. Cloud Sportsmen's Club of St. Cloud, recently reelected the Officers of the organization at their Annual Meeting. Robert Johns was reelected President, Henry L. Padgett, Vice-President, and Logan Ellis, Secretary-Treasurer. C. S. Collins will continue as Director of the Florida Wildlife Federation from the St. Cloud Club.

The main objective of the members this year will be the organization of a Junior Conservation Club.

Eighty members and guests of the Rod and Reel Club of Miami thoroughly enjoyed the Bahamas and some fabulous fishing during the Club's "Bimini Cruise". Twenty-two boats participated in the week long cruise, which is an annual affair. A number of squalls were encountered on the way over, one boat ran out of gas, and two developed engine trouble, but all boats checked in safely at Bimini. In the Club's fishing contest, twenty bronze awards, thirteen silver awards, and sixteen gold awards were given to members for outstanding catches. Four members recently explored the north coast of Cuba for 10 days of fishing.

Donations for completing the Junior Conservation Camp on Lake Eaton, in the Ocala National Forest, are slowly coming in. Names of all persons or organizations donat-

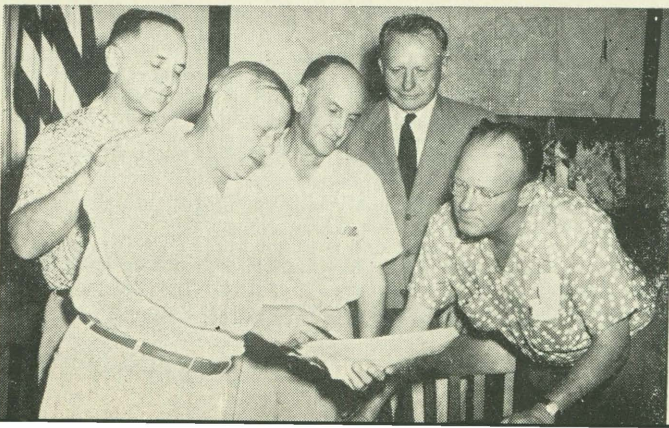
ing to the construction fund will be inscribed on plaques installed on the buildings.

Donations from Clubs of the Florida Wildlife Federation include the Sportsmen's Club of Dade County, St. Petersburg Rod and Gun Club, Lealman Rod and Gun Club, Airboat Association of Florida, Halifax Hunting and Fishing Club, Volusia County Wildlife Association and the Volusia County Council of Conservation Clubs. Other Clubs who have pledged assistance include the Rod and Reel Club of Miami, and the Miami Beach Anglers and Boating Club.

It is hoped that in the near future the Federation will have 100 per cent representation in this worthwhile project.

The U.S. Fish and Wildlife Service Annual survey of waterfowl breeding grounds started May 1. It will end the middle of August and is being conducted throughout Canada, Alaska, and the Northern States. The survey is made in cooperation with the Canadian Wildlife Service, Ducks Unlimited, Provincial Game Branches, State Fish and Game Departments and the Wildlife Institute. The basic objective is to predict the number of wild ducks, geese and coots that will be migrating south next fall. The resulting forecast will guide Canadian and U.S. Officials in drafting appropriate bag limits and number of days of hunting for the 1955-56 waterfowl season. **END**

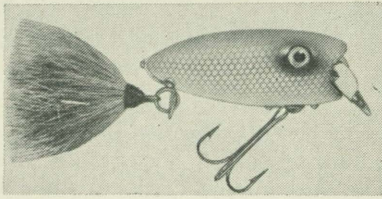
Federation meeting at Tarpon Springs. L. to R.: Bob Aldrich, Director, G&FWFC; Dr. Wilber; Sam DuBon, Federation Vice President; Kenneth Friedman, Director, representing Florida Tackle and Gun Club; and Porter Lansing, Director, representing the Seminole County Sportsmen's Club.



Flood Control meeting at Vero Beach. L. to R.: Roy Wood, Regional Supervisor, Fish & Wildlife Service; Dr. H. R. Wilber, FWF; Mr. Wallace, Director of Flood Control District Board; A. D. Aldrich, Director of G&FWFC; Oscar Rawls, U. S. Army Engineers, and an assistant of Mr. Wood from the F&WS.



FLORIDA WILDLIFE FIELD TESTS AND TELLS



DURING the many years we have been field testing products as members of the staff of a national research institute, it has been our observation that most of the fish-getting lures have originated with active fishermen rather than at the drafting boards of imaginative tackle designers. Amateur inventors and serious fishermen are notorious for their privately conducted experiments and tackle manufacturers lend a respectful ear to field reports of new lures and methods that take fish.

For years, Claude Fenderson, a photo engraver in a Springfield, Ohio, printing plant, wasn't satisfied with purchased lures he used for bass fishing—so he began to make experimental models, carrying out initial test runs in the Fenderson family bathtub. The more promising creations were taken astream for actual trial as fish-getting baits. Gradually, Fenderson perfected a series of designs and color combinations that proved their worth time and again. His fame as a bass fisherman spread and other anglers began to wear down the threshold of his workshop door. FWFT&T first learned of Fenderson's bass-taking creations through, of all persons, a rival bait manufacturer, but one broad-minded enough to recognize and salute the merits of a competitor, and curious enough to want to know what Fenderson's lures would do when cast for Florida largemouth bass.

The samples that eventually came to hand were of achieved manufacturing perfection that belied their entire making and assembly by a single workman using ordinary home-workshop tools. In every detail, the lures reflected the work of a perfectionist.

Inquiry developed that Fenderson personally cut the bait bodies from selected blocks of cedar; shaped them on a lathe; impregnated the cutouts with plastic, and attached homemade metal parts of stainless steel. The very fine fish-scale finish which Fenderson puts on some of his baits he attains by spraying paint through a wire screen after first painting on other decorative markings with an air-brush. For necessary dies, for his metal fittings, Fenderson designed his own tools and machinery.

Tested on Florida black bass, the Fenderson lures have created a sensation among all who have been privileged to fish them. Their bass-catching ability probably stems from the fact that their maker, as an experienced bass fisherman, has wisely combined the appeal of a good-action plug with the deadliness of a bucktail streamer fly. Most appropriately, Fenderson calls his bass-tempting lure the Plug-O-Fly.

To use the Fenderson creation most successfully on our Florida bass, employ a slow method of fishing it. Cast and let the plug lie still on the surface for some time; then activate the Plug-O-Fly for a few inches or for as much as a foot, and again let it lie quietly. Repeat the procedure until a few feet of water have been fished in the described manner. Finally, cause the lure to dive suddenly, by a sharp retrieve, and finish

out the cast by using it as an underwater plug.

Another good method is to cast and start your retrieve (by a sweep of the rod tip) just as the plug reaches the end of its flight, but while still in the air. The applied control will cause the cast lure to dive as it hits the water. Retrieve the Plug-O-Fly for a foot or two as an underwater bait, then allow it to surface and rest before completing the retrieve in the usual underwater manner. Sometimes the splash of the lure falling into the water is a bass-attractor; again, the quiet dive method may prove more effective. Master and use the described techniques. They catch fish for Fenderson; they also catch Florida bass for us. All of Fenderson's color combinations have taken Florida fish, but his yellow, perch and green scale finishes have been especially deadly.

Address C. E. Fenderson, 33 West Ward Street, Springfield, Ohio, for a list of available styles and applying prices. FWFT&T considers the purchase of one or more Plug-O-Fly lures a good investment in productive bass fishing.



IF you have ever experienced a fully developed case of seasickness while on an offshore fishing or boating trip, and could not get back to land for the cure that consists of putting both feet solidly on good old terra firma, you undoubtedly thought you were going to die—and probably hoped you would!

Seasickness, or "motion sickness" as it is sometimes called, is no joke; it can affect the strongest of physiques and constitutions. On the other hand, some persons are never affected at all, no matter how rough the waves or trip. Doctors say that susceptibility is based on the sensitivity of the nerve that controls one's equilibrium and the centers of balance located in the inner ear.

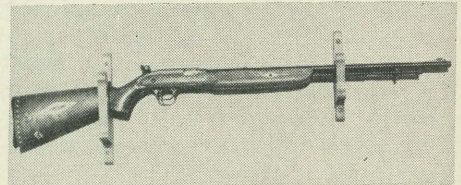
For those plagued with motion sickness every time they go to sea, travel by train or air, or make long trips by car, there is a new, harmless drug that gives almost one hundred per cent insurance against such illness for from four to six hours. Where motion sickness has already developed, such accompanying conditions as nausea, vomiting and tendency to perspire profusely are relieved.

Known as "Marezine," product of Burroughs Wellcome Company, manufacturing chemists to the pharmaceutical and medical professions, the new drug has been tested on thousands of plane and ship passengers with almost a clear record of noted effectiveness. Unlike some other motion sickness remedies, "Marezine" rarely causes drowsiness or lassitude. The product is now available in drug stores without a prescription.

Hunters who travel long distances to hunt promising areas are frequently bothered with car sickness. Also, hunting dogs, jounced and shaken by travel in trailer or car trunk compartment, often are affected by car sickness and sometimes reach a hunting spot too motion-sick to do their job. For such cases, "Marezine" works as well on dogs as hunters.

If you're technically minded, "Marezine" is simply the trade name for cyclizine hydrochloride. Dosage of 50 mg., three times a day (taken one hour before meals) can be continued for three or four days without any unpleasant side effects.

"Marezine" is supplied in bottles of 100 tablets and in handy vials of ten. The latter package sells for approximately 65 cents, through retail drug outlets.



ONE of the most popular places for keeping a rifle or shotgun in the home between periods of field use is the corner of a room or in a utility closet—an unwise habit. Many fine guns, stood upright in such locations, have suffered serious and unsightly damage when inadvertently knocked off balance during house cleaning operations or when companion objects are removed from storage.

Preferably, valuable firearms should be kept in their own storage cabinets, in a horizontal position to prevent oil from draining from barrels—to undesirably saturate the wood immediately surrounding the breech and tang. However, not all homes have the extra space needed for a full size gun cabinet.

Solution is to mount your favorite firearm in the cradling arms of a simple wall-style gun holder, made of wood and finished to blend with the walls of your room, enclosed porch, den or library. One of the best and most inexpensive models FWFT&T has examined to date is the Model AGH-200 manufactured by Karen-Lynn Woodcrafts, 5225 - 8th Avenue, South, Gulfport, Florida. The brackets are made of Parana Pine, finished natural or in green, redwood and mahogany wood finishes, or felt flocked in gold, green, red and black (solid) colors. The butt unit, made to accommodate popular gun models, measures $\frac{3}{4}$ "x $3\frac{1}{2}$ "x $10\frac{1}{2}$ ", while the barrel unit is finished to $\frac{3}{4}$ "x 3 "x 9 " specifications. The units are usually mounted on the wall spaced approximately 22 inches apart, using either #4 long Molly-bolts or $1\frac{1}{2}$ " size number six wood screws for permanent installation.

(Keeping a valuable firearm in the open air is not harmful if the weapon is first thoroughly treated with a modern rust preventative, as represented by Gard Anti-Rust Spray, Rig or Polarized Sheath, and examined periodically.)

The AGH-200 wall-style gun holder retails for \$2.00 (plus 6¢ Fla. retail sales tax), and is shipped prepaid to any point in Florida for that price. Orders outside of Florida are 15¢ extra, for the additional postage involved.

FISHING LICENSES

(Issued from Office of County Judge)

Exempt—Residents 65 years of age and over; children under 15. Cost includes County Judge's fees.

Service men, stationed in Florida, are considered residents of Florida insofar as licenses to hunt and fish are concerned.

FISHING

Series A—Resident State, Fresh Water.....	\$ 2.00
Series B—Non-Resident State, Fresh Water.....	10.50
Series C—Non-Resident, 14-day Continuous Fishing, Fresh Water	3.25
Series D—Non-Resident, 3-day Continuous Fishing, Fresh Water	1.25

License Required to take fresh water fish.

License not required of residents to fish non-commercially with three poles in county of legal residence.

License required to fish outside of county in which you reside regardless of method used.

FRESH WATER FISH DEALERS

Series U—Resident Retail. May sell to consumer or wholesale dealer. If he takes fish must have license for boat	\$ 5.00
Series V—Resident Wholesale (to sell or ship by half-barrel, barrel, or in bulk)	50.00
Non-Resident or Alien (to sell to consumer or wholesaler). If holder catches fish must secure license for boat	50.00
Non-Resident Wholesale (to sell or ship in half-barrel, barrel or bulk)	500.00
Series W—Required for each boat rented for hunting, or fishing in fresh waters:	
18 feet length	\$ 1.50
19-21 feet length	4.00
21-25 feet length	15.00
Over 25 feet length	25.00



Governor Collins signs and hands to Senator Conner of Inverness, the three-day \$1.25 license fee bill for non-resident fresh water sport fishermen. Senator Conner introduced and sponsored the bill. John V. "Jack" Monahan, executive secretary of the Florida Sport Fishing Association looks on.

G. I. CONSERVATION

(Continued from Page 17)

Reason for the extensive water conservation is the fire hazard. No one has to be told what could happen if a fire ever broke out on an ammunition depot. Water, and lots of it, must be handy at all times. Thus the ponds and lakes. Needless to say, the lakes are full of fish—Johnson sees to that—and waterfowl use them (the lakes) extensively during migration flights. Johnson has even started a nesting population of Canada geese.

Another conservation project I found intensely interesting is located at the Quantico Marine Base, 40 miles down the Potomac River from Washington, D. C. The setup here is quite different from that at McAlester.

The Marines really go in for active hunting and fishing at Quantico, and have a program that could readily be used as a model for any sportsmen's area. They have their own Rod and Gun Club with dues at \$2.00 per year. All monies thus collected are spent on improving hunting and fishing.

The Marines engage in a lot of food plot planting for game birds, have cleared out streams and lakes and have improved waterfowl habitat along the Potomac to such an extent that hunting and fishing within the confines of Quantico is in some respects better than it is on the "outside."

The U. S. Fish and Wildlife Service started a nucleus of a wild turkey flock which has grown to sizeable proportions. The deer herd has also grown considerably, and both the Federal bureau and the Virginia Dept. of Fish and Game are actively engaged in stocking both bass and trout in suitable waters within the area.

Anyone stationed at or connected with the Quantico base can fish and hunt therein, subject to Virginia game laws.

It is the purpose of Congressman Sikes' bill to have hunting and fishing become part of the regular military program. The thing makes sense, and think what an enlistment inducement it could be! In addition, imagine what a boon it would be to servicemen and civilians alike. No

sportsman today is confronted with more territory than he can hunt and fish, and any additions thereto, especially those the size of military reservations, will be enthusiastically welcomed.

What if the civilian can't hunt on a military area? The GI's can, and every man in uniform who can hunt and fish on his own area means less crowded conditions on public areas many of which are busting at the seams as it is.

Sikes' bill makes provisions for state and Federal cooperation in developing the hunting and fishing potential of all military areas. To my way of thinking, this is definitely as it should be. Wildlife restoration is a highly specialized job these days, and it takes trained men with plenty of know-how to get the desired results.

Taking everything into consideration, a bill to foster and promote fishing and hunting on military reservations is one of the best conservation ideas to find its way into the legislative hopper on Capitol Hill in a long time.

Here's hoping it goes over. END

SNOOK HEAVEN

(Continued from Page 27)

casters line up to work on the big linesides. And when one of them hangs a big one and begins to fight him up and down the canal, then it is that cars from British Columbia and Kalamazoo almost collide as they shudder to a stop to the scream of protesting tires. In a jiffy cars from Maryland, Alabama, Colorado, Oregon, California and little old Rhode Island line up, and from inside them pour the spectators, to watch the fight.

In such canals, and also in shallow bays, you often see the snook busting into small minnows, slurping them in by the peck. Then nothing beats a fly rod and a small white bucktail. Drop the bucktail into the striking fish, let it sink down a few inches, then bring it back in a slow, even strip of at least two feet. After that, if the bucktail is still intact, impart inch long jerks to it by manipulating the rod tip, making it jump like a real minnow fleeing the pack, and you can bet that old linesides won't resist.

Another migration that draws snookers from afar is the annual late May-early June movement of the big fellows in to the sands of Marco Beach. Here, on the Gulf of Mexico, at the end of State Road 951, just 12 miles south of the Tamiami Trail, 100 miles west of Miami and 8 miles east of Naples, is snook fishing that will tie even the most phlegmatic angler in knots.

Airplane pilots have spotted these fish coming in from a southerly direction, a great shadow moving through the water below them. No one knows where they come from and no one has ever spotted the moving out again, so what becomes of the bulk of them is unknown. But they stay around the beach for a couple of months, long enough for anglers to reap a rich harvest from a type of fishing unparalleled elsewhere.



Within the boundaries of snook heaven.

As you walk along the beach you can see schools of 30 to 40 fish, small ones weighing two or three pounds apiece, and in each school usually a big female that may go as high as 30 pounds; and then you see singles and doubles, and better, of fish weighing from five to 25 pounds. Without ever getting his feet wet, a guy can put a lure in front of those schools and take his quota of fish, because they are usually hungry.

Snook may be found in many other places besides Florida, but you'd hardly know it from the world record charts. The 12 pound test class is held by I. R. Dukes with a 29 pounder taken at Lake Park, Florida. The 20 pound test class is held by G. Van Wickle with a 36 pound 14 ounce fish taken at St. Lucie Inlet, Florida. The 30 pound test class is held by L. K. Spencer with a 43 pounder taken at Lake Worth, Florida. And the 50 pound test class is held by L. S. Caine with a 49 pound 8 ounce catch made at Marco, Florida.

Besides this heavy representation on the general listing, the only two women's records chalked up so far were also made with snook taken in Florida waters. Mrs. C. G. Pollard copped the all-tackle women's rec-

ord with a 33 pound 12 ounce fish caught on 30 pound test line at Fort Lauderdale; and the 50 pound line class was taken by Mrs. B. N. Fox when she landed a 31 pound 8 ounce at Stuart, Florida. The rest of the classes for snook in the women's division are wide open, but it's amost a sure bet that when they are filled, those world record snook will also come from Florida waters. **END.**

COON HUNTING

(Continued from Page 11)

strangely at Orr. He began to run toward the noise.

When they found the hounds, they had the coon in a big hollow log. Queen had her head and shoulders in the mouth of the log, taunting Ring-tail. At the other end an old palmetto partially blocked the opening.

With a gleam in his eye, Orr stepped upon the middle of the log. There was a loud crash and crackling of the rotted log. Orr suddenly sat down backwards as his rifle hit the ground over his head. Then out shot the coon—right over his chest! Where ever that coon was heading, his mind was sure made up. The hounds weren't going to let him change it either.

It was a mad scramble of cross country flight in a few seconds flat. They reached the dogs near the creek but the coon was hidden among a tangle of grapevines. Orr prodded the leaves with a long pole.

There was a crackling noise. Then Paul laughed. Orr had pushed the vines back and was looking smack into the tired eyes of the coon.

There was a loud commotion in the tree and a startled yelp from Orr.

"Look out! He's coming down!"

Two things came down at once—the coon and the pole. The dark body cleared the vines in a soaring leap of fur and leaves. But the hounds nailed him. Then all was a furious cartwheel of coon and hounds. There was nothing to match that old coon. The hub of that cartwheel was black and spinning. The coon stayed bottom.

Spike was the first to quit. Then ol' Queen.

The coon dived for the creek and swam to the other side, stopping only long enough to give one long, baleful gleam of red contemptuous eyes to both men and hounds. **END**

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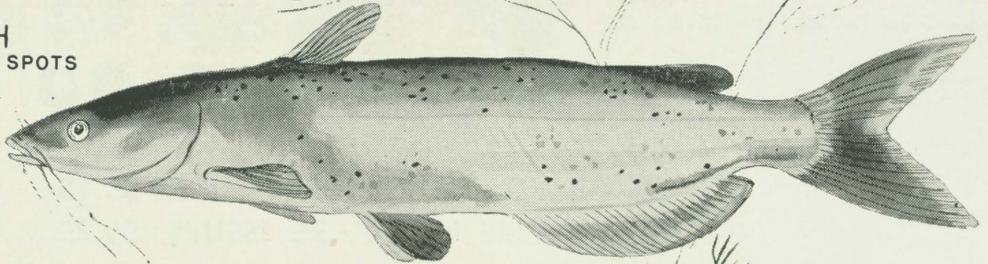
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CHANNEL CATFISH

SIDES WITH SCATTERED DARK SPOTS
LOBES OF TAIL POINTED

BONEY RIDGE FROM HEAD TO
ORIGIN (FRONT) OF DORSAL FIN UNBROKEN

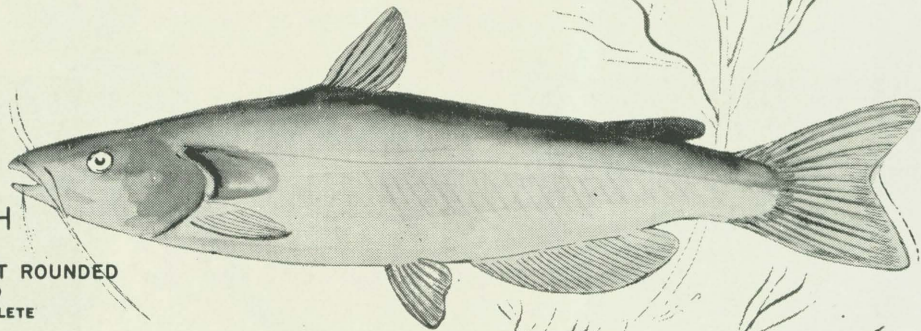


WHITE CATFISH

SIDES PLAIN

LOBES OF TAIL SOMEWHAT ROUNDED

BONY RIDGE FROM HEAD TO
ORIGIN OF DORSAL FIN NOT COMPLETE

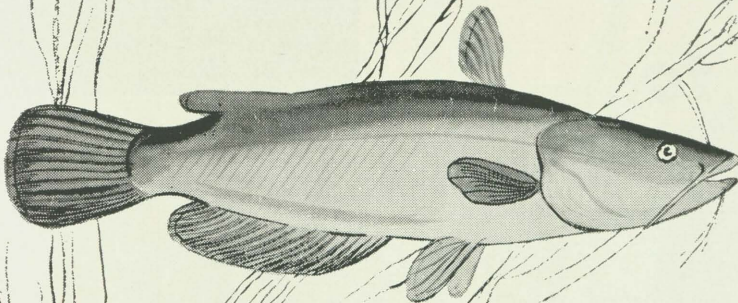


CATFISH

YELLOW CATFISH

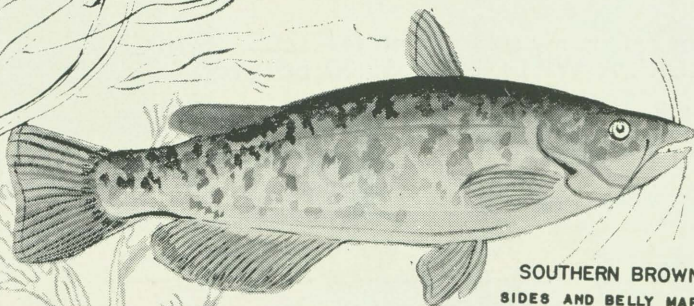
SIDES AND BELLY PLAIN

USUALLY YELLOWISH IN COLORATION
25-27 RAYS IN ANAL FIN



SOUTHERN BROWN BULLHEAD

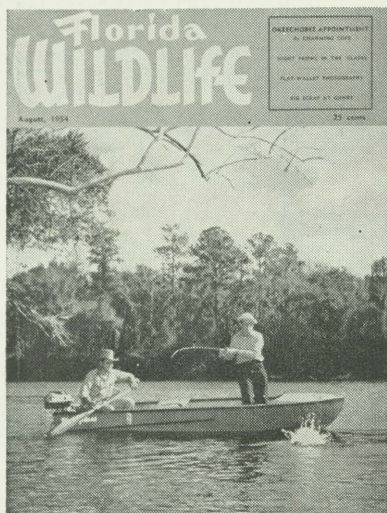
SIDES AND BELLY MARBLED OR SPOTTED
20-22 RAYS IN ANAL FIN



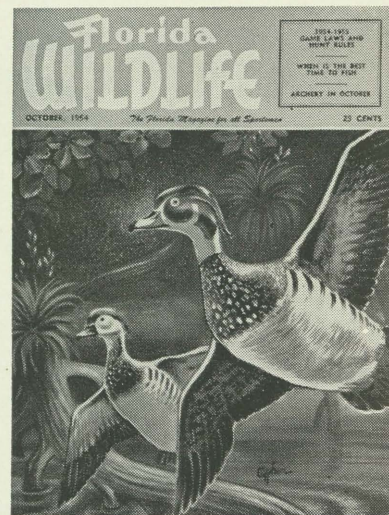
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